

# Bird-Lore

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## Winter Bird Life in Los Angeles

By HARRIETT WILLIAMS MYERS

Secretary California Audubon Society; Chairman Birds, G. F. W. C.

With Photographs by the Author

**N**EVER in my twenty-one years' residence in Los Angeles have I had so many birds in my garden so early in the fall as in the year 1919.

We are in the habit of having the Gambel Sparrows (a subspecies of the White-crowned) arrive not later than September 26, to have Ruby-crowned Kinglets, Audubon Warblers, Alaska Hermit Thrushes follow soon after, but 1919 brought a series of delightful surprises for the bird-lover.

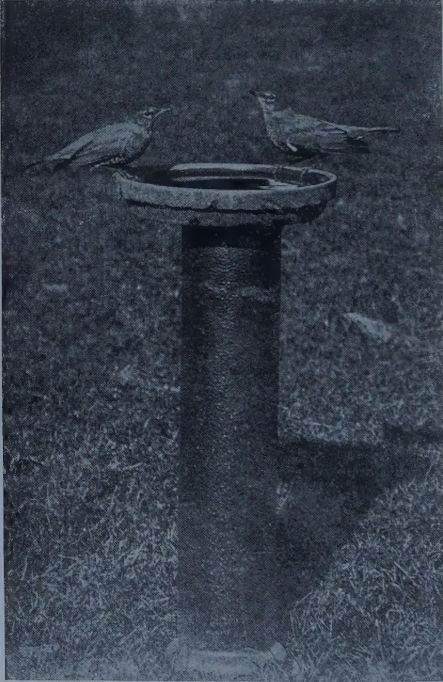
Our winter rains came earlier than usual, and during November the Sierra Madre Mountain range was covered with snow, an almost unheard-of condition at this time of year. In September a most disastrous fire raged for several weeks on portions of this same range, driving into the valley many of the small animals and birds. But whether or not this fire, or the early cold, or the fact that there were fewer pine cones and acorns in the mountains than usual had anything to do with the unusual visitors that seemed fairly common, I would not venture to say. Suffice it that a more delightful fall and winter for the bird-lover could scarcely be imagined.

I usually have Cedar Waxwings in my garden during the winter and early spring months, when they come to eat the berries from the big pepper trees, six of which grow in our garden. These charming birds go about in flocks, which are usually large, flying together in a compact form, their long-drawn-out notes, which always remind me of sighing wind, announcing their presence as, still in close formation, they light in the trees. They are extremely fond of pepper berries and have an interesting habit in connection with the eating of them. These berries have hard centers which the birds cannot digest, so when they have eaten their fill of them and, I suppose, the digestible outer portion has been assimilated, they fly into some other tree, the eucalyptus being a favorite, and there disgorge these inner pellets, which fall onto the ground below like falling rain. In my own yard, beneath these eucalyptus trees, large patches of pepper trees have sprung up and the uninformed might wonder how they got

there. When these eucalyptus trees grow along a roadway, or beside a cement walk, the remains of the red berries are most abundant and a cause of surprise to one who cannot "read a roadside as he reads a book."

This year I was amazed to find my yard full of Waxwings the first of October, and they were reported to have been seen in September, a most unusual occurrence. On October 24 a Robin called in the yard. I thought that I had heard one earlier in the month, but by the end of October the yard was

full of these big, jolly birds, and some of them were singing their 'really, truly,' song as well as the familiar 'wheat-wheat,' 'tut-tut-tut' call-notes. Last year was the first time that I had heard, commonly, that wonderfully clear, liquid song which, so far as my recollection goes, is just like that of the eastern bird, and brings fond memories of a childhood when Robins nested familiarly in the garden and dug worms from the lawn.



WESTERN ROBINS

These birds are also fond of pepper berries, gathering them from the trees and from those fallen on the ground. They also disgorge the hard inner pellet as, I doubt not, all birds do that eat them. These spicy little berries seem to create in the Robins a great thirst, so that my bird drinking-plates are freely patronized and often the pellets are deposited there. Some-

times four big Robins are on one small dish at once, and one day I saw a Cedar Waxwing circle dangerously near the head of a Robin as it tried to find a resting-place. The larger bird resented the Waxwing's presence and made faces at it in a most undignified way, but nevertheless the Waxwing disregarded the Robin's protest and, lighting on the dish, helped himself to water. I regretted that my camera was not set up in time to catch this attractive picture.

On November 9 a busy little Mountain Chickadee was seen foraging in a fruit tree in the garden. Some days before I had heard a call which I thought might be that of this little stranger, but as it came from high up in the tree-tops and I felt might be that of the Plain Titmouse, I gave it little heed. Only once before have I had these mountain-loving birds in my yard and that was



about two years ago, in January or February, when one of them stayed about for two or three weeks; so one may imagine my delight on seeing this little visitor.

On November 12, a Crested Jay, dweller of the mountains, was seen in the valley not far from my home. California Jays we have in abundance, but these beautiful, high-crested birds ordinarily prefer the high mountains.

Wren-Tits, those distinctively western birds that usually live on the brush-covered hillsides or wooded cañons, are constant visitors this winter and their peculiar clear whistles are often heard. Plain Titmice, those dainty crested midgets; California Bush-Tits, a tiny western species; Alaska Hermit Thrushes, Ruby-crowned Kinglets, Audubon Warblers, Dusky Warblers, White-crowned Sparrows, Spurred Towhees, such common birds as Black Phœbes, Linnets,



BLACK PHOEBE

Song Sparrows, Towhees, Anna's Hummingbirds, Blackbirds and Green-backed Goldfinches are about in abundance.

One surprise of November 25 was the appearance in my elderberry of a male Phainopepla. These beautiful black-crested birds are summer visitors that, for the most part, are gone by August, although occasionally a stray one is reported in the winter time. On December 5 a gray female of this species also visited the yard and drank from a bird-bath. My camera was in position but the light was not strong enough for a good picture. On December 9 the male was about again, and all through December he has been here. As I write this (December 23) he is still with me and I am hoping to get a photograph of him at my bath. These birds are also fond of pepper berries.

Perhaps the greatest surprise of the season was on November 19 when, on casually glancing out of the window, I saw a small dark bird whose big white collar stood out against the dark background and made him conspicuous where otherwise he blended into the tree. He was resting, head downward, as immovable as though dead, and in this position he remained for fully five minutes

without stirring. When I opened the porch door and stepped out he only hitched a few inches away. Quite evidently he did not mind mankind. A loud 'yank, yank, yank' from a neighboring tree proclaimed that he was not alone and confirmed my belief that I was looking at a Slender-billed Nuthatch, western representative of the White-breasted Nuthatch. He finally climbed about on the tree, inspecting crevices before he flew away. His cousin, the Red-breasted Nuthatch, has also been reported in the valley.

California Purple Finches are in my yard earlier than usual this year. They forage mostly on the ground, also eating the pepper berries fallen there. Later in the season they are fond of fruit buds and some complaint has come because of this habit. I notice, however, in my own yard, that I have plenty of fruit after they have feasted in my blossoming trees. Perhaps it is only insects that they molest. At any rate, I always welcome them in my garden.

Varied Thrushes, large cousins of the Robins, have been seen this winter in the valley, as has also that gorgeous creature, the Red-breasted Sapsucker. As yet, these two birds have not visited my garden when I have been at home to receive them, but as about eighty species of California birds have done so at some time of the year, I shall live in hopes that they will not pass me by when they are making their southern calls, but will show my garden the same consideration that so many other birds have shown.



MALE PHAINOPEPLA

Courtesy of *The Condor*



## The Bird-House for Purple Martins

By THOMAS L. McCONNELL, McKeesport, Pa.

THE problem of designing a good house for a colony of Purple Martins is simply a matter of attending to many little details. When a Martin-box is deserted after two or three years the cause is apt to be one of the following: Improperly designed house, uninviting situation, such as too near or under trees, or too close to a fence or building, a poorly selected pole, the Sparrows may have been allowed to take possession of the quarters, the small boys may be persecuting the birds, or the place may not be cheerful.

The bird-house should have at least ten separate rooms, for the sociable Martins love to live in colonies and small colonies suffer much from the English Sparrow. Make the rooms about 6 inches wide by 8 inches deep by 8 inches high. There is really no exact size necessary. For instance, one authority suggests 5 or 6 inches wide and of similar height and 8 or 9 inches deep, the long rooms being favored so that the Screech Owl cannot reach the nests. Another writer recommends rooms 8 inches wide by 8 inches deep by 6 inches high.

The doors may be  $2\frac{1}{4}$  inches wide by 3 inches high, including a  $1\frac{1}{8}$  inch radius arch at the top, or round holes  $2\frac{3}{4}$  inches in diameter. A round hole or arched hole should be made 'bulging' or become wider towards the center of the box. "Even so small a change as boring a bulging hole in a box, instead of a straight one, and beveling the lower edge of the entrance hole, increased the occupancy of the boxes in the Berlepsch woods from 50 to 90 per cent." It is better never to use a square hole and when one is cut, by all means round off the top into an arch. Birds seem really to prefer a round hole.

Two of the large, successful Martin colonies in McKeesport dwell in houses with each room having two circular entrances about  $2\frac{1}{2}$  inches in diameter placed about 1 inch apart. This seems an excellent idea and the writer has noticed that the old birds, when feeding their young, use both holes and dart in and out with less confusion and interference than when only one opening is provided. These entrances should be on the same side of the room and never on different sides, as this leads to fighting among the old birds and spells disaster to their eggs and young.

Porches, about 2 to  $2\frac{1}{2}$  inches wide must be provided in front of the doors for the convenience of the old birds when feeding their nestlings and for the young when they are ready to learn to fly. If there are no porches many young birds fall to the ground and are lost. When a nestling unable to fly drops to the ground it must be replaced on the box because the parents never feed their young on the ground and, moreover, cats are usually on the lookout for such accidents. By a suitable and artistic selection of porches the house may be made a structure of beauty and grace.

No ventilation is necessary besides the entrance holes and all rooms should

be separate and draft-proof. Usually the door-sill is the floor line, although many authorities advocate raising the sill about  $\frac{1}{2}$  inch above the floor and porch levels, which prevents rain water from flooding the rooms. No wind-wheels, flagpoles, lightning-rods or other fantastic appliances should be fastened to the house. This point is often raised by beginners. A blind chimney or two may be built on to the roof for the sake of beauty and symmetry, and besides a chimney makes the house more cozy and homelike.

The house should be substantially built of  $\frac{3}{4}$ - to 1-inch pine or other wood so as to withstand the weather. It should be painted white because white is the coolest color. During the hot weather the young birds suffer much from the intense heat of the sun. The writer usually paints the roof a darker color, often some shade of green, never red. Avoid a red color because all birds instinctively shun a red bird-box.

The height of the box above the ground should be from 13 to 16 feet, never less, although the author knew of one old established colony living in a house only 7 feet from the ground. The box should not be fastened to the pole with brackets, but with angle irons, and vines should not be grown around the pole, for the birds are afraid of cats climbing the pole—a cat-proof pole is absolutely essential.

To curb the English Sparrow, take down the house or close all the openings after the Martins are gone. Either method is effective. In BIRD-LORE, January, 1914, the author covered many other points in his article, 'Notes on How To Start a Colony of Purple Martins.'

A few years ago the writer studied a handsome ten-room bird-house which the Martins would not inhabit after four or five years of trial and believed that the box may have been improperly designed. He bought this box and found the openings to measure 2 inches square. This is rather too small for the Martins to enter easily and carry in nesting material. The entrances were enlarged by cutting a semi-circular arch over the doorways, making the new height 3 inches. Last year this box was erected at the Youghiogheny Country Club near McKeesport and about three pairs of Martins immediately occupied the pretty residence.

Few people realize how permanent a Martin colony may be. McKeesport has one colony over thirty years old and still as thriving as ever and there had been one within 100 feet of this one for over forty years previous, which carries us back well before the advent of the English Sparrow. The writer put up his first Martin-box about twenty five years ago at Kittanning and the successful colony still flourishes. Since then he has started many colonies at other places. His last effort at his present home in McKeesport has been unsuccessful and every scheme and device was used in vain. The birds seemed to come and stay a few days and then leave. The house was the identical one that the Martins loved at his former residence only six or eight blocks distant. Finally one spring day, upon coming home, he caught one of the neighbor's boys stoning a Martin



off the box. This solved the mystery and illustrates one reason why a Martin-house may not be inhabited.

Referring to the selection of a cheerful spot for the prospective Martin-home, one can say nothing better than to quote the words of Mr. C. W. Parker (*In the Open*, April, 1918): "Place your Martin-house in the most cheerful and prominent place to be found, in the brightest sun, away from all trees, and where people pass most. . . . The main requisite is that you have a cheerful location, which is perhaps best described by the two words, 'pleasantly situated.'"



GREEN HERON AND NEST  
Photographed by A. A. Allen, Ithaca, N. Y.

# The Migration of North American Birds

## SECOND SERIES

### XV. YELLOW-HEADED BLACKBIRD AND MEADOWLARKS

Compiled by Harry C. Oberholser, Chiefly from Data in the Biological Survey

#### YELLOW-HEADED BLACKBIRD

This beautiful bird is distinctly an inhabitant of the West, for it occurs but casually in eastern North America. The breeding range of the Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*) reaches north to northern Manitoba, northern Saskatchewan, southwestern Mackenzie, and central British Columbia; west to southwestern British Columbia and western California; south to southern California, southern Arizona, the States of Jalisco, Michoacan, and Mexico, in Mexico; and east to the valley of Mexico, western Texas, eastern Kansas, central Missouri, eastern Illinois, northwestern Indiana, eastern Wisconsin, and central Manitoba. It winters north to southern California, southern Arizona, southern Texas, and southwestern Louisiana; south to the States of Puebla, Michoacan, and Jalisco, Mexico. It is of casual occurrence east to Maine, Connecticut, New Jersey, South Carolina, and Florida; and accidental in Alaska, Greenland, Quebec, as well as in the islands of Cuba and Barbados in the West Indies.

#### SPRING MIGRATION

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Chillicothe, Mo.....	2	March 16	March 14, 1914
Chicago, Ill.....	7	May 2	April 10, 1892
Sioux City, Iowa.....	12	April 20	April 3, 1887
Wall Lake, Iowa.....	7	April 19	April 14, 1907
Madison, Wis.....	12	April 25	March 23, 1902
Heron Lake, Minn.....	10	April 19	April 10, 1887
Minneapolis, Minn.....	13	May 1	April 21, 1917
St. Vincent, Minn.....	2	May 2	April 25, 1896
San Antonio, Texas.....	6	April 16	April 13, 1885
Gainesville, Texas.....	4	April 21	April 11, 1876
Wichita, Kans.....	6	April 17	April 5, 1917
Onaga, Kans.....	23	April 24	April 13, 1898
Syracuse, Neb.....	17	April 19	April 3, 1904
Sioux Falls, S. D.....	4	April 27	April 17, 1910
Rapid City, S. D.....	6	May 8	April 26, 1905
Argusville, N. D.....	12	May 2	April 19, 1884
Aweme, Manitoba.....	18	April 30	April 13, 1897
Reaburn, Manitoba.....	11	May 2	April 24, 1897
Qu'Appelle, Sask.....	16	April 30	April 6, 1913
Ft. Chipewyan, Alberta.....			May 24, 1901
Durango, Colo.....	4	April 27	April 10, 1917
Denver, Colo.....	8	April 14	March 30, 1907
Rupert, Idaho.....	3	April 16	April 6, 1912
Terry, Montana.....	5	May 9	May 5, 1899
Great Falls, Mont.....	4	May 8	May 6, 1912
Flagstaff, Alberta.....	7	April 28	April 16, 1915
Modesto, Calif.....	3	April 11	April 1, 1908
Malheur Lake, Oreg.....	4	April 21	April 1, 1915
Okanagan Landing, B. C.....	3	May 16	May 14, 1914



## SPRING MIGRATION, continued

LOCALITY	Number of years' record	Average date of last one observed	Latest date of last one observed
San Antonio, Texas.....	4	May 21	May 25, 1885
Onaga, Kans.....	14	May 19	June 3, 1893
Syracuse, Neb.....	10	May 10	May 16, 1895

## FALL MIGRATION

LOCALITY	Number of years' record	Average date of last one observed	Latest date of last one observed
Chicago, Ill.....	3	October 26	October 30, 1891
Sioux City, Iowa.....			October 1, 1910
St. Vincent, Minn.....			October 25, 1897
Sioux Falls, S. D.....	2	September 18	September 20, 1908
Aweme, Manitoba.....	11	September 14	October 20, 1911
Boulder, Colo.....	4	September 28	October 30, 1910
Rupert, Idaho.....			September 16, 1911
Great Falls, Mont.....			September 12, 1891

## CASUAL RECORDS

Florida.....	No date.
Augusta, Ga.....	September 23, 1893.
Chester, S. C.....	April 18, 1884.
Buckhannon, W. Va.....	Spring, 1888.
Washington, D. C.....	August 29, 1892.
Baltimore, Md. (near).....	September 10, 1891; September 18, 1893, October 1, 1894.
Erie, Pa. (near).....	August 22, 1896.
Allegheny Co., Pa.....	April 26, 1895.
Chester Co., Pa.....	May 3, 1880; September 15, 1885.
Fish House, N. J. (near).....	No date.
New Haven, Conn.....	June, 1878.
Hartford, Conn.....	July, 1884.
Stamford, Conn.....	July, 1888.
Watertown, Mass.....	October 15, 1869.
Eastham, Mass.....	September 10, 1877.
Monomoy Island, Mass.....	September 8, 1897.
Spruce Head, Maine.....	August 17, 1882.
Godbout, Quebec.....	September 4, 1878.

## MEADOWLARK

The well-known Meadowlark (*Sturnella magna*) has a wide geographic distribution, occurring from southern Canada through the United States, Mexico, and Central America, to Venezuela. Of its eight recognized subspecies, only three occur in North America. These with their geographic ranges are as follows:

The **Eastern Meadowlark** (*Sturnella magna magna*) breeds in eastern North America north to New Brunswick, southern Quebec, southern Ontario, and northeastern Minnesota; west to central and southwestern Minnesota, western Nebraska, central Kansas, and northwestern Texas; south to central Texas, southwestern Missouri, central Illinois, central western Tennessee,

western North Carolina, and southern Virginia; and east to the Atlantic Coast from Virginia to New Brunswick. In winter it retires from the northernmost part of its range, but remains at this season north, at least irregularly, to southern Maine, southern Ontario, and Michigan, and passing at least as far south as southern South Carolina, Alabama, Louisiana, and southeastern Texas. It is of casual occurrence northeast to Nova Scotia and Prince Edward Island.

The **Florida Meadowlark** (*Sturnella magna argutula*) is resident and breeds in the southeastern United States north to North Carolina, northern Alabama, northern Mississippi, southwestern Indiana, southern Illinois, southeastern Missouri, northeastern Arkansas, and northeastern Texas; west to eastern Texas; south to southeastern Texas, with the Gulf Coast of Louisiana, Mississippi, Alabama, and southern Florida; and east to eastern Florida, eastern South Carolina, and eastern North Carolina.

The **Rio Grande Meadowlark** (*Sturnella magna hoopesi*) is resident in the southwestern United States north to south central Texas, central New Mexico, and central Arizona; west to central Arizona and central Sonora; south to Sonora, central Chihuahua, southern Coahuila, and southern Tamaulipas; and east to eastern Tamaulipas and central southern Texas.

All the migration dates given below refer to the common Eastern Meadowlark, and may be more or less misleading because, at all except the northernmost localities, some individuals of this species usually pass the winter. The spring dates represent, however, the normal appearance when the bird is not wintering, or the dates when it becomes more conspicuous from its winter seclusion; while those for the autumn show its normal disappearance from ordinary observation or from the localities given when not actually wintering.

## SPRING MIGRATION

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Beaver, Pa.....	13	March 8	February 11, 1888
Renovo, Pa.....	18	March 26	March 13, 1913
Morristown, N. J.....	16	March 10	Rare, winter
Alfred, N. Y.....	29	March 22	March 9, 1913
Syracuse, N. Y.....	19	March 21	February 6, 1902
Jewett City, Conn.....	24	March 7	Rare, winter
Providence, R. I.....	9	March 5	Rare, winter
Amherst, Mass.....	8	March 17	February 3, 1886
Boston, Mass.....	21	March 19	Rare, winter
Rutland, Vt.....	9	March 18	Rare, winter
Tilton, N. H.....	6	April 6	March 26, 1915
Portland, Maine.....	11	April 9	March 20, 1908
Montreal, Quebec.....	6	March 31	March 21, 1913
Scotch Lake, N. B.....			April 6, 1907
St. Louis, Mo.....	11	March 2	Rare, winter
Chicago, Ill.....	34	March 12	February 28, 1890
Fort Wayne, Ind.....	17	March 1	February 10, 1890
Columbus, Ohio.....	9	February 27	February 5, 1915
Oberlin, Ohio.....	24	March 3	Rare, winter



## SPRING MIGRATION, continued

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Vicksburg, Mich.....	13	March 9	February 6, 1910
London, Ontario.....	12	March 16	March 2, 1885
Ottawa, Ontario.....	34	April 2	January 10, 1909
Keokuk, Iowa.....	12	March 5	Rare, winter
Sioux City, Iowa.....	11	March 12	March 7, 1910
Madison, Wis.....	21	March 14	March 5, 1894
Lanesboro, Minn.....	10	March 30	March 21, 1889
Minneapolis, Minn.....	15	March 29	March 18, 1903
Onaga, Kans.....	8	March 5	Few, winter
Red Cloud, Neb.....	5	March 4	February 18, 1916

## FALL MIGRATION

LOCALITY	Number of years' record	Average date of last one observed	Latest date of last one observed
Beaver, Pa.....	4	November 11	December 10, 1887
Renovo, Pa.....	17	October 24	November 23, 1911
Morristown, N. J.....	12	November 6	Rare, winter
Hartford, Conn.....	5	October 26	Rare, winter
Providence, R. I.....	6	November 2	Rare, winter
Amherst, Mass.....	4	November 7	December 9, 1892
Boston, Mass.....	8	November 24	Rare, winter
Portland, Maine.....			December 24, 1908
Montreal, Quebec.....	6	October 11	November 7, 1909
Scotch Lake, N. B.....			December 27, 1907
Concordia, Mo.....	7	November 4	Rare, winter
Chicago, Ill.....	13	October 28	December 4, 1915
Fort Wayne, Ind.....	9	November 4	December 1, 1912
Richmond, Ind.....	8	November 14	Rare, winter
Wauseon, Ohio.....	10	November 12	Rare, winter
Oberlin, Ohio.....	10	October 25	Rare, winter
Vicksburg, Mich.....	10	November 2	December 12, 1913
Newberry, Mich.....	3	October 15	October 23, 1910
London, Ontario.....	4	October 29	November 20, 1901
Ottawa, Ontario.....	22	October 15	November 13, 1915
Keokuk, Iowa.....	12	November 4	Rare, winter
Madison, Wis.....	7	October 24	November 8, 1913
Lanesboro, Minn.....	4	October 14	October 19, 1892
St. Vincent, Minn.....	3	October 20	October 31, 1897
Onaga, Kans.....	19	November 13	Few, winter

## WESTERN MEADOWLARK

The rich, melodious song of the Western Meadowlark (*Sturnella neglecta*), so different from that of its eastern relative, is a familiar feature of western bird life. The geographic range of the species extends from southwestern Canada through the United States to central Mexico. Two subspecies are now recognizable, of which the distribution is as follows:

The **Western Meadowlark** (*Sturnella neglecta neglecta*) breeds in western North America north to southern Manitoba, central Saskatchewan, central Alberta, and south central British Columbia; west to south central British

Columbia, central Washington, central Oregon, and western California; south to southern California, northern Sonora, northern Durango, southern Coahuila, and southern Tamaulipas; and east to central Tamaulipas, central Texas, central Oklahoma, eastern Kansas, eastern Missouri, eastern Iowa, and Wisconsin; occasionally to eastern Illinois and northern Michigan. It winters from southern British Columbia, Colorado, and Nebraska, south to Louisiana, southern Texas, southern Tamaulipas, Michoacan, Jalisco, and southern Lower California. It is of accidental occurrence at Fort Simpson in southwestern Mackenzie.

The **Northwestern Meadowlark** (*Sturnella neglecta confluenta*)\* is resident and breeds in the Pacific Coast region of North America north to southwestern British Columbia, south through western Washington to northwestern Oregon, and east to the Cascade Mountains.

Records in the subjoined migration tables all pertain to the Western Meadowlark.

## SPRING MIGRATION

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Sioux Falls, S. D.....	4	March 18	March 11, 1908
Rapid City, S. D.....	11	March 26	March 7, 1910
Argusville, N. D.....	11	March 31	March 17, 1894
Marstonmoor, N. D.....	5	March 21	March 11, 1910
Bathgate, N. D.....	7	April 3	March 24, 1894
Pilot Mound, Manitoba.....	14	March 31	March 20, 1910
Aweme, Manitoba.....	18	April 1	March 21, 1911
Reaburn, Manitoba.....	12	April 5	March 26, 1902
Qu'Appelle, Sask.....	16	April 2	March 14, 1909
Ft. Simpson, Mack.....			May 20, 1904
Beulah, Colo.....	12	March 10	Rare, winter
Denver, Colo.....	10	March 16	Rare, winter
Cheyenne, Wyo.....	3	April 1	March 27, 1889
Rathdrum, Idaho.....	10	February 22	February 4, 1906
Terry, Mont.....	12	March 30	March 22, 1894
Bozeman, Mont.....	4	March 23	March 20, 1903
Big Sandy, Mont.....	5	March 30	March 24, 1907
Columbia Falls, Mont.....	5	March 27	March 19, 1896
Flagstaff, Alberta.....	10	April 7	March 23, 1915
Spokane, Wash.....	3	February 25	February 11, 1907
Mirror Lake, B. C.....	4	March 28	March 18, 1911

## FALL MIGRATION

LOCALITY	Number of years' record	Average date of last one observed	Latest date of last one observed
Sioux Falls, S. D.....	5	November 2	November 7, 1915
Rapid City, S. D.....	9	November 9	November 26, 1915
Marstonmoor, N. D.....	4	October 27	November 27, 1909
Aweme, Manitoba.....	19	October 25	November 8, 1907
Beulah, Colo.....	10	October 27	Rare, winter
Bozeman, Mont.....	4	October 22	November 5, 1912
Big Sandy, Mont.....	3	October 15	October 27, 1906

\*This proposed form has not as yet been acted upon by the Committee on Nomenclature and Classification of the American Ornithologists' Union. [Ed.]



# Notes on the Plumage of North American Birds

FIFTY-NINTH PAPER

By FRANK M. CHAPMAN

(See Frontispiece)

**Meadowlark** (*Sturnella magna*). In the Meadowlarks the sexes are much alike; the nestlings resemble their parents; there is but one molt a year, and seasonal variations in plumage are due chiefly to wear which is exceptionally pronounced in these birds.

When it leaves the nest a young Meadowlark wears a necklace of black instead of the solid breast-crescent of its parents; it is dull buffy yellow below, its sides practically unstreaked, but the plumage of the upper parts is much like that of the adult and the bird is unmistakably a Meadowlark.

The first fall (post-juvenal) molt is complete and the young bird then acquires a costume not distinguishable from that of the winter adult. This differs from the summer plumage by its generally browner tone due chiefly to the presence of brownish margins to the body-feathers, the black breast-crescent being much obscured by them.

As the season advances, these margins largely wear off and what remains of them becomes much faded, and the result being the darker, yellower bird of the nesting season. In some instances, particularly in arid regions, at the end of the nesting season, this wearing and fading of the plumage is carried to an extreme which almost obliterates the bird's markings.

The geographical variations in the color and pattern of the Meadowlark's plumage are as complex as its seasonal variations are simple. From the southern border of its range, in northern Brazil, to its northern limits in Canada, nine different forms are currently recognized, of which four are known from north of Mexico as follows:

1. Eastern Meadowlark (*Sturnella magna magna*, Fig. 1). The race of the eastern United States.\*
2. Southern Meadowlark (*Sturnella magna argutula*). A smaller, darker form from the southern states.
3. Western Meadowlark (*Sturnella magna neglecta*). The paler form of the western states in which the yellow of the throat extends to the sides of the neck, and the bars on the rump and tail are more clearly defined than in the eastern bird.

The relationships of the Eastern and Western Meadowlarks have never been satisfactorily determined. In the Mississippi Valley typical examples of each form may be found in the nesting season at the same time—evidence of their specific distinctness in that region, where the few intermediate specimens found may with reason be called hybrids.

But in the Rio Grande Valley a form (*hoopesi*) occurs which so obviously

\*The ranges of the several forms are given by Dr. Oberholser in the preceding paper.

combines the characteristics of both *magna* and *neglecta* that it is difficult not to consider it a connectant between the two.

In life the two birds may readily be distinguished by the marked difference in the call-notes and songs; but I recall no study of the song of *hoopesi* by one thoroughly familiar with those of *magna* and *neglecta*. In my notes made at Corpus Christi, Texas (where *hoopesi* breeds), long before this bird was described, I record the Meadowlark songs heard as resembling those of *magna*, but at that time I had never heard the song of *neglecta*. A study of the songs of Meadowlarks on our Mexican border by a well-equipped observer would be sure to yield interesting results.

4. Rio Grande Meadowlark (*Sturnella magna hoopesi*). In general coloration this bird more nearly resembles *neglecta* than it does *magna*, but the yellow of the throat does not spread to the sides of the neck, as it does in the first-named form.

**Yellow-headed Blackbird** (*Xanthocephalus xanthocephalus*, Figs. 3, 4). The nestling Yellow-head is quite unlike its parents. The whole head and breast are warm buff, giving the effect of a brown-headed bird; the abdominal region whitish; the back blackish, both more or less fringed with buff; the tail and wings black, the wing-coverts tipped with white. At the post-juvenal molt the tail and wing-quills and primary coverts are retained, while the rest of the plumage is exchanged for a costume which resembles that of the female, but is usually without streaks on the breast, or if streaks are present, they are yellow. This plumage is worn at least until the following May, when there are evidences of molt about the head, and it may not be entirely replaced until the second fall molt, but I have seen no specimens after May 24 which were not in fully adult plumage (Fig. 3).

All of the thirteen May birds in immature (first winter) plumage in our collections are from Texas and northern Mexico. It does not seem possible that they could have molted into adult plumage in time to nest in it, and the absence from our large collections of more northern breeding birds in immature dress suggests the possibility of such birds remaining in their winter quarters.

The adult male winter plumage resembles that of the summer, but the crown and nape are more or less obscured with brown. The primary coverts, as in summer, are conspicuously white with black tips. There is also more or less white on the outer greater coverts.

The female is much alike throughout the year, but in winter plumage all the yellow areas are deeper and the plumage generally is darker.



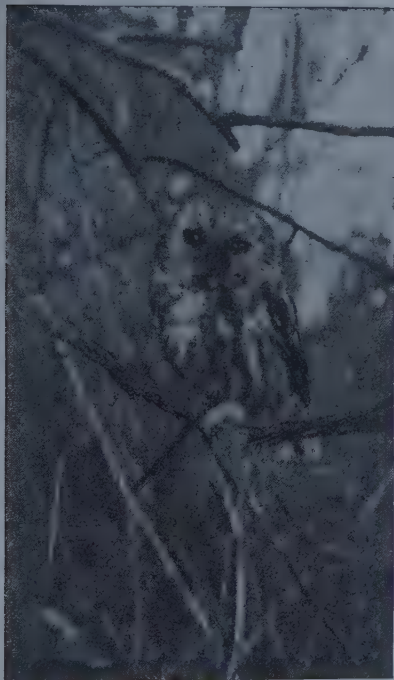
# Notes from Field and Study

## A Yellow Rail in a Street

On September 14, 1920, when reading on the porch, my neighbor called to me to ask what the queer bird was that was walking in the middle of the street. What was my surprise to see a Yellow Rail coming toward the curb!

It took refuge among some petunias that formed a border along the curb, and it did not move as I got down to within two feet of it to study it.

That so shy a bird should land on a much traveled street in the heart of Chicago seemed strange indeed. It was a disappointment that I could not watch it till it moved on.—GLADYS FOWLER, *Chicago, Ills.*



SAW-WHET OWL

Photographed by Lawrence Zeleny, at  
Minneapolis, Minn., March 13, 1920

## A Flicker's Food

In a poem by the writer, "Mr. Flicker Writes a Letter", printed in *BIRD-LORE* for August, 1899, are these lines in connection with his food habits:

"But my delicacy is ants,  
Stump or hill inhabitants;  
Thrusting in my sticky tongue,  
So I take them, old and young."

Running back from our house in Pasadena is a walk made of the natural clay, packed down to nearly the hardness of a brick. For years I have seen occasionally upon that walk one of our beautiful California Flickers. But he seemed to be always on the watch. A slightest movement at the near-by window, or on the screened porch, would send him flying with his brilliant under-wing display of old gold. It will be remembered that his coin is of a darker yellow than that of his eastern cousin. I had supposed that my 'Golden Wings' came occasionally, like the California Thrasher, for crumbs that are put out daily for the smaller birds. But today I glimpsed him first and learned what he was after. Going through the porch very slowly I escaped his vision till I could get my head fixed at the edge of a curtain for observation: and he was very busy. Just beneath that brick-like surface the small brown ants have burrows. Leading to these are openings in which a small lead pencil might be inserted. Mr. Flicker was pegging away first at one hole then another, enlarging and tracing them out. Then he would insert his bill far as possible and one could imagine the catch on his tongue, and detect the quick movement of swallowing. But not five seconds elapsed without his lifting his head high to take a sweeping observation. After watching him for several moments I retraced my steps carefully hoping to leave him undisturbed in his enjoyment. I was well within the house door when he took the alarm and

went off. I then went out to see just what he had done. There were several places where he had exposed the tunnels from one to two and a half inches. At the place where one went deeper he had enlarged it with his bill and the ants were again coming out in what he would, I suppose, consider paying numbers.—GARRETT NEWKIRK, *Pasadena, Calif.*

### A Friendly Blue Jay

This is a true story of a Blue Jay. About the middle of September a wounded Blue Jay appeared at my farm at Bedford Hills, New York. One leg was broken, a wing was bruised, and its condition was altogether forlorn. John, a member of the household, took pity on him, bound up the broken leg with adhesive plaster and gave the bird comfort in many ways. The Blue Jay rewarded these friendly ministrations with the most extravagant evidences of gratitude and affection. It followed John about his work, remained with him nearly all day and spent the night in John's room. If John took a walk, the bird kept him in sight, flying from tree to tree, and would come home perched on John's shoulder or his cap. Although demonstrating its attachment to its friend, it did not like to be touched and reluctantly allowed itself to be caught by the object of its affections.

When John was laid up for some days with a slight ailment, the bird became more assiduous in its attentions to its benefactor. It hardly left the sick chamber, spending the night perched on John's toes or near his head picking off any stray fly that presented itself. If John gave it some food, the bird would hide it after the way of its kind, perhaps placing it in a corner of the room under a newspaper or other object and from time to time lifting the edge of the cover to see if its treasure was safe. The strangest part of this strange love-making was the Blue Jay's call to John in the morning. It would insert its beak between John's lips and waken him by tapping gently upon his teeth. For weeks this curious affair went on. The bird

was perfectly free. The windows were open and it came and went at will. Occasionally the bird betrayed the marauding instincts of its race by snatching some glittering object and hiding it, but commonly its behavior was most domestic.

After the bird had been a guest of our house for six or seven weeks, the time came for the family to move to the city. Fearing that the wild bird would injure itself against the wires if confined in a cage, a band box was prepared with slits for ventilation, and in that the bird made the journey. John kept his visitor shut up for a week or ten days until it should be accustomed to its new surroundings. But the time came when humanity demanded freedom for the bird and the top of the box was removed. The emancipated Blue Jay made for the open window and has never been seen since. Whether it became bewildered and lost its way, or came to grief, or felt it had paid its debt to civilization we never shall know. John, who never had a bird friend before, is heart-broken and 'Pou-i Pou-i' has left a household of mourners.—HENRY MARQUAND, *Washington, D. C.*

### Evening Grosbeak Nesting in Wisconsin

This past summer while at my cottage on the shores of Lake Superior, between Washburn and Bayfield, Wis., one cold day the middle of August my attention was attracted by a peculiar metallic bird-note, "like the creaking of a rusty barn-door hinge," which I at once took for the call-note of a Rose-breasted Grosbeak. Imagine my astonishment when I discovered a whole family of Evening Grosbeaks, a male, female and three young birds, feeding on the half-ripe fruit of an elderberry which grew close to our living-room window. There could be no mistake about their identity, for we were within ten feet of them and had ample time to observe their actions. Though the young were well able to feed themselves, and did, now and then one of the parent birds would pluck a berry and thrust it into the open beak of a young one; then the whole



family would go on feeding as before. The young birds could fly for short distances but were very awkward upon the wing, much preferring to sit and ruminate. They were undoubtedly only a short time out of the nest. For three days the family were about the cottage, or until they had cleaned the elderberry of fruit, and then disappeared. Later I think I discovered the nest in which the young were hatched, in a low shrub close down by the edge of a purling trout stream just below the cottage. The nest was loosely built of dead grass and small twigs, and contained the remains of greenish-blue eggs, lightly flecked with

we hastened to photograph them, also to release them immediately thereafter with profuse apologies.

On the eleventh of November the trap was moved from its barnyard home to the vicinity of our feeding box, in an effort to reduce the number of English Sparrows who daily feasted there.

Two English Sparrows were left in the trap as decoys. A casual glance a little later revealed, not a trap full of English Sparrows, but a Loggerhead Shrike, the first one we have seen in this vicinity, frantically endeavoring to make a meal of our imprisoned Sparrows. He was not



WHITE-CROWNED SPARROWS AWAITING THEIR RELEASE  
Photographed by W. B. Perley, Jr.

brownish spots. Of course I could not be sure of the identity of the nest, though there was not a shadow of doubt about the birds.—O. W. SMITH, *Evansville, Wis.*

shy about it either, as he stayed for half an hour before finally deciding that those Sparrows were making him ridiculous.—W. B. PERLEY, JR., *Ojibway, Ontario.*

### The Adventures of a Sparrow Trap

Imagine our feelings when we found thirty English Sparrows in a patented Sparrow trap that we had scoffed at for six months. One might think that our trap, having vindicated itself, would rest on its laurels, but no! Several weeks later we found three White-crowned Sparrows in its capacious interior.

As this member of the Sparrow family is rarely seen under such circumstances,

### Sparrow Meets Sparrow

The first part of July, 1920 (unfortunately, I did not record the exact date), I discovered a pair of Chipping Sparrows building a nest in a Baltimore Oriole's nest, which has hung for several seasons about fifteen feet up in an old apple-tree in our yard. In this nest within a nest there were to be strange happenings.

I was away from home much of the time and so paid little attention to the

birds after the nest was built until the early evening of July 24. Then I noticed that there were at least three, good-sized young in the nest, though the high edge of the Oriole's nest made it difficult to see the contents well. I also detected some kind of a commotion about the nest, in which an English Sparrow was undoubtedly concerned.

The next afternoon trouble in the apple-tree was still present in the form of the English Sparrow. I watched with field-glasses from the porch about twenty-five feet away and on the lawn under the tree for the greater part of the afternoon. I do not attempt to explain my observations, but the following is what I saw:

On the edge of the nest was a female English Sparrow making vicious stabs at a Chipping Sparrow that was trying to go to the nest with a worm. Six or seven times (I did not think to begin to count at first), did that Chippy make the attempt before it succeeded. Almost constantly the intruding Sparrow continued on the watch. Sometimes she would sit motionless on the edge of the nest only moving her head to watch the Chipping Sparrows when they approached, and then peck at them when they were within reaching distance. At other times she would perch in the branches and dash to the attack when the parents came with food. No male English Sparrow came near. Also I several times saw her drive away another female English Sparrow as fiercely as she did the Chipping Sparrow. Once I saw her snatch a sizable green worm from the beak of a parent Chippy and fly away with it. Frequently she came to the nest and went through the motions of feeding the young herself, but I could not see that she had anything in her beak. Several times she did this immediately after a Chipping Sparrow had fed, and, although I could not prove it, because her motions were so rapid, it looked to me as though she snatched something from a young bird's beak. The parent birds did manage to feed the young occasionally by working quickly. A little later I distinctly saw the English Sparrow remove excreta from the nest and carry

it away. She continued at intervals her apparent process of feeding the young, and once I saw her give one a worm. Occasionally she left the tree and went hunting down in the grass, usually going through the feeding process upon her return.

What could have been the reason for such exceptional conduct? One might say that by some chance the English Sparrow also had young in the nest, but all the young I saw were decidedly Chipping Sparrows, and called like them.

The next day I was unable to make observations, and in another day all the young had left the nest.—MABEL R. WIGGINS, *East Marion, L. I., N. Y.*

#### A Catbird Foundation

While looking after my bird nests last May I discovered that the Catbirds had built their nest in the lilac bushes and by June 10 four young ones had left the nest. A pair of Robins looking for a nesting-site for their second brood, now built a second story to the deserted nest and by July 1 they had four eggs which, in due time hatched and the brood was reared in safety.—R. J. MIDDLETON, *Jeffersonville, Pa.*

#### Mockingbird Winters in Iowa

On December 15, 1920, at noon, I was surprised by a visit from a strange bird. The feeding-shelf is just outside the kitchen window and while we noted the bird's markings it very leisurely inspected all the arrangements and foods displayed, ate of sunflower and wild rose seeds, and finally, after five or ten minutes, flew away.

On the 16th I saw it four times, twice on the shelf. On the 18th it visited the shelf and on the 19th was in the yard.

I find in 'Birds of Ohio,' p. 196, that "C. H. Morris, on Jan. 25, 1903, in company with E. J. Arrick, found and captured a Mockingbird near McConnellsville, Ohio." Also, Blanchan, in 'Bird Neighbors,' p. 82, records that "even in midwinter the Mockingbird is not unknown in Central Park, New York City."

With this evidence added to my own



conclusions, based on identification and elimination, I feel confident that my visitor was a Mockingbird.—MRS. F. L. BATTELL, *Ames, Iowa.*

### A Tufted Titmouse Story

Reading of the Tufted Titmouse in BIRD-LORE prompts me to describe my experience with this to me entirely new bird. I hear its beautiful call of three notes while I am writing; in fact, it is this call which started me doing what has been on my mind for some time.

It was in May last year when I distinctly heard one of my chicks call in a rather distressed and persistent manner. I sent a boy to the chicken yard to see what the trouble was. He reported that there was nothing wrong with the chicks, and that the calling came from the woods near by. We stopped work to investigate, as is our custom when the song of a strange bird is heard, and soon discovered two beautiful mouse-colored birds, lighter grey on the under side and with crest, a mark which enabled us to locate them on the chart—and we do not often feel so sure that we get the correct name.

In the woods, and in fact all about our place, are many bird-houses, and the Tits showed a lively interest in an old, obsolete Bluebird-house.

In summer we eat our meals in a tent the whole north side of which is wire-screened. Just outside of this, and within six feet of our table we have a feeding platform. In summer this is mostly visited by Catbirds. We cater to them by soaking bread in milk which they seem to relish, and sometimes we add boiled rice.

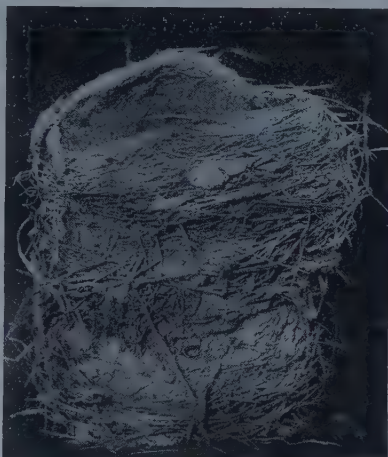
It was not long before our new friends discovered this feeding shelf to which they came often, and there was a new interest in life for us. In due time they brought their four young, and amidst a good deal of 'scrapping' they all got their fill. Two of the young would often cling to the pole underneath the shelf, but they would never all eat at the same time.

We saw much of them all the autumn, but as seeds ripened they came less and less

to feed. In November and December we often did not see them at all for days, but I believe that they were never absent for more than a week.—ALBERT P. GREIM, *Toms River, N. J.*

### Notes from Collins, N. Y.

I was much interested in the notes in BIRD-LORE, May-June, 1920, on Robins' nests and regret that I did not have photographs of several I have observed.



A MUCH-USED ROBIN NEST

One built under a wagon, several have built on the fire-escape starting as many as four to eight nests, at the same end of the stairs, one above the other. One Robin used the same nest (see photograph) on top of a window of a cottage for at least four years, adding to it annually until it nearly toppled over. The nest was removed in painting the cottage, but another was built this year. Robins build just outside the noisiest wards. Several have built in low spruce trees in the hedge and one in a hollow in the trunk of a tree.

The House Wrens certainly do destroy eggs and nests of Bluebirds, as well as those of English Sparrows. They will break the eggs and drag out the nests.

An abundance of cotton put out for birds has been used by Yellow Warblers, Goldfinches (which began to nest May 30)

and Cedar Waxwings. A Brown Creeper and Red-breasted Nuthatch fed at my stations, with Chickadees, White-breasted Nuthatches, and Downies. The Chickadees and Nuthatches fed from my hands and several more confiding ones took nuts from my lips.

A dead tree so full of holes that we call it the 'apartment stub' held at once in its many openings a Flicker, Downy, and a Bluebird, but the latter was driven off by an English Sparrow. The Chickadees made many holes in a fickle manner, half finishing them and then taking others.—(DR.) ANNE E. PERKINS, *Collins, N. Y.*



BLUEBIRDS AT HOME

Photographed by Lester Mörlock, Plymouth, Ind.

### Hanging the Bird-House

Like other bird-lovers I have found the annual putting up and taking down of bird-houses to be a good deal of a nuisance, and the means of attaching them to trees or other supports by means of nails or screws a very unsatisfactory method. Recently I hit upon a plan which I have

tried out for a season and found very useful.

Instead of fastening the house up with nails I make a small hole on each side of the box, near the roof and near the back. Through these holes, and extending about a foot on each side, I slip a piece of strong but flexible wire. The wire must be strong enough to support the box, but not so heavy that it may not be easily bent. I then drive two nails into the tree or other support on which the box is to be hung, and a little higher up than the place for the box to rest. The nails should be about a foot further apart than the width of the box. The wire I then twist about these nails, making sure that the box hangs straight down and is level. It will be found that this supports the box firmly against the tree, and that the wire is practically invisible. A few seconds' time is sufficient in which to untwist the wire and take the box down, or place it in position. The nails may remain in place for use again. Heavy wire, with hooks formed at each end for attaching to the nails, is a satisfactory arrangement, but requires more careful work in accurately measuring distances, etc., the first time the box is hung.—EMILY A. CORNING, *St. Paul, Minn.*

### Birds and Salt

I was much interested in what Esther Reeks, Boulder, Colo., said about 'House Finches Eating Salt' in September-October BIRD-LORE, 1920 (page 286). It was the first published note on salt-eating by birds I have ever seen. From some casual observations I have made, I have been led to believe that some birds like salt nearly as well as cattle, horses and other animals, and if they had access to it at all times, a general liking for it would soon be developed.

Across the road from our house, in a pasture, there is a trough where barrel salt is kept most of the time. English Sparrows can be seen on and around this trough nearly every day, and if one looks closely, they can be seen industriously picking away at the salt. While they are



the chief visitors to the trough, I have also Mourning Doves, Crows and some other common birds there apparently eating fragments of salt. I have given salt to chickens and find that they eat it greedily.

The above notes are not by any means

conclusive, and if the fact that birds like salt has not already been established, it should offer some opportunities for interesting experimental work at feeding stations, etc.—FRED J. PIERCE, *Winthrop, Iowa*.

## THE SEASON

### XXIV. December 15, 1920 to February 15, 1921

BOSTON REGION.—The winter in Massachusetts has been mild, so far, with very few cold days. About Boston the ground has been bare, or covered by only two or three inches of snow. These conditions are in marked contrast to those of last winter when periods of intense cold were protracted and the snow-fall was over ten times as great.

The scarcity of birds reported two months ago has been no less noticeable during January and February. Not only is there a total absence of the irregular winter visitors, the Grosbeaks, Redpolls, and the Crossbills, but in this region there are very few of the usual winter visitors, such as Tree Sparrows, Juncos, and Golden-crowned Kinglets. Permanent residents also—Chickadees and White-bellied Nuthatches for example—are present in numbers far below normal. During midwinter excursions into the country, although the sun shone brightly and the air was soft and spring-like, we found the woods and thickets deserted, and for mile after mile as silent as midnight.

This absence of birds set us thinking, wondering where the birds are which usually spend the winter with us, and why they did not move southward this season. Observers who visited northern localities last autumn reported a good crop of pinecones there, and hence predicted that there would be no invasion of Crossbills into New England; perhaps the successful fruiting of birches, alders and other trees similarly accounts for the absence of Redpolls and Pine Grosbeaks.

Mr. Edward H. Forbush advances the ingenious explanation of the rarity of the smaller passerine birds which usually

winter here. He says in Bulletin XXXVII, Division of Ornithology (Mass.), Jan. 31, 1921: "Perhaps this [scarcity] may be accounted for in part by the fact that many individuals that were accustomed to stay here were killed off by the severe weather of last winter." This suggestion becomes very significant when considered in the light of Mr. S. Prentiss Baldwin's discovery that many individual birds pass the winter in definite localities.

The Evening Grosbeak has become, of late years, such a regular winter visitor in eastern Massachusetts that some explanation other than the abundance of food in the North seems necessary to account for its non-appearance this year. The favorite food of this Grosbeak while wintering here is the seed of the box elder (*Acer negundo*) and it has been suggested that extensive planting of these trees between New England and the Great Lakes has resulted in inducing the birds to extend their winter range toward the southeast. Examination of the fruit of the box elder trees in Lexington, Mass., shows that, although the trees appear to have ripened seeds this winter, a large proportion of the embryos are so withered that they would be worthless as food for the Evening Grosbeak. The failure of this crop of seeds, if at all general, may be responsible for the absence of this bird from New England.

If observers who live on the Grosbeak's line of travel to the Atlantic Coast will examine the seeds of the box elder in their respective localities and report the results to me, I shall be glad to summarize them for publication.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—Mid-December to the first of February the season was remarkably mild and open. A short cold snap in each of the last two weeks of January, and a snowstorm which whitened the ground for the first time, the very end of the month, provided but a taste of winter.

Response to these conditions by bird-life is found in records of various species north of their ordinary winter range, for which see the Christmas Census in the preceding number of *BIRD-LORE*. Of other such records which have come to hand the most noteworthy is that of a small flock of Tree Swallows wintering at Long Beach, L. I. They were observed on New Year's Day by E. P. Bicknell and Charles Johnston. Another observer (W. C. Starck) reports "six of the Tree Swallows still left of the original ten," Long Beach, February 13. At Mastic, L. I., a Catbird and flock of 20 Mourning Doves were noted January 1, and a Savannah Sparrow on January 2 (J. T. N.). At this same locality several Wilson's Snipe were present, December 18 (R. Floyd, Jr.). The bay marsh where they occurred is suitable for migrating rather than wintering individuals and they were likely moving south late. That this species did winter on the island, however, is evidenced by two in the hands of gunners, and one or two more heard at Elmhurst, January 8 (H. S. Boyle).

There appears to have been a small flight of Bluebirds the first week in January. Six or eight are reported from the vicinity of Yonkers, January 2 (Gladden), and on the same date a flock of upwards of 50 at Oyster Bay (W. B. Nichols). January 9, a number, Oyster Bay—Purple Finches with them; and Bluebirds observed in the vicinity through the rest of the month (W. B. N.). The Purple Finch has been unusually scarce this fall and winter. Its presence with these Bluebirds is in line with the opinion that they had just come in from further north, and form the rear of the southward movement, composed of birds which, under ordinary circumstances, would have passed in late

fall. A male Chewink is reported from Bronx Park, January 15 (L. S. Crandall).

From up the Hudson (M. S. Crosby, Dutchess County) five Wilson's Snipe are reported on January 16 from "Brick-yard Swamp" where they were observed in early December; a Rusty Blackbird and a Sapsucker, January 16; a Red-winged Blackbird and 24 Grackles, January 22; a Mourning Dove, February 13; and a Coot at Constitution Island, January 7.

It is interesting to enumerate these unusual instances, but they stand out against an apparent scarcity of passerine bird-life, as compared with an ordinary winter. This scarcity can be explained by the effect of the very severe winter preceding on the personnel of birds which might ordinarily winter in the region, and the absence, also, of individuals driven south or coastwise by severe weather. In the interior of western Long Island (near Garden City) Meadowlarks were noticed, apparently in migration, from December 15 to 23, after which date they seemed to have gone; but on January 15 there was a flock of 8 or 10 at Garden City, already in song, and a few, perhaps members of this same flock, have been continually present since. No Horned Owls were heard the first of the year at Mastic, a favorite resident locality for them where they were unusually plentiful the winter of 1919 to 1920. They likely had wandered because of an observed scarcity of rabbits, and one or more Horned Owls, reported from the outskirts of New York City this fall, and winter, may have been such wanderers.—J. T. NICHOLS, *New York City*.

WASHINGTON REGION.—Notwithstanding the mild winter weather about Washington during December, 1920, and January, 1921, birds have been neither unusually numerous nor conspicuous. Perhaps the lack of snow, cold and high winds has induced the birds to remain more on the uplands and has less concentrated them in the valleys and other sheltered places. Be that as it may, the open winter of the northern United States has at least had an influence on the



numbers of northern winter visitors here, as we have had no reports of such birds as the Pine Siskin, Red-breasted Nuthatch, White-winged Crossbill, Snowflake, American Pipit, Northern Shrike and Swamp Sparrow. It is, of course, possible that the lack of information regarding the occurrence of these species is due in part to lack of observation in favorable places, but it is nevertheless true that northern birds, such as the Winter Wren, have been of less frequent appearance than usual, and the same remark will apply to most species of Hawks.

On the contrary, some common winter visitors, such as the Junco, White-throated Sparrow and Fox Sparrow, have been as numerous as ever. The Myrtle Warbler apparently has been more often seen than is the rule during the winter, for we have records in December and January from various localities in this region. The Robin, which is nearly always a rare winter bird about Washington, was seen on January 4, 1921, and also later in the month. Purple Grackles were noted on January 25 by Miss M. T. Cooke, and doubtless were present during the entire winter, although we have no other reports. A Catbird was seen by Mr. and Mrs. L. D. Miner near Rosslyn, Virginia, close to Georgetown, on January 1, and was kept under observation for nearly ten minutes. This is apparently the only District of Columbia record for the month of January, although the species was noted on December 31, 1883. The occurrences just mentioned may well have been due to the mild winter weather, as was possibly also that of the American Coot, seen near Washington by Mr. J. Kittredge, Jr., on December 19, 1920, which date is nearly a month beyond the previous latest record of the species in this vicinity, November 26, 1916.

As possibly worthy of mention, a Pil-eated Woodpecker was observed at its roosting hole by Mr. E. A. Preble on Bullneck Run, near the old Leesburg turnpike, on January 23, 1921. This species is of considerable rarity about Washington and is confined to the wilder and more heavily timbered parts of the country. The only Crossbills reported are eight

individuals of the American Crossbill, seen by Mr. F. C. Lincoln on the lower part of Difficult Run, December 16, 1920. It may also be worthy of note that an adult Bald Eagle was noticed on December 3 soaring over the northern part of the city of Washington, for, though the species is of common occurrence along the Potomac River, both below and above Washington, it seems not frequently to visit the city itself.

It is of perhaps more than passing interest that even the relatively mild weather of this winter has not roused the song birds to song, for even such common winter singers as the Carolina Wren, the Cardinal and the Mockingbird have been heard singing very little during either December or January.

While the various species of Ducks that regularly resort to the Potomac River in considerable numbers during the winter months have been present during December and January, they have been for the most part apparently not nearly so numerous in total numbers of individuals as during last winter, evidently a direct result of the milder weather which has enabled them to remain on good feeding grounds farther north. The list of the twelve species so far observed this winter is as follows: Mallard, Black Duck, Pintail, Shoveller, Greater Scaup, Lesser Scaup, Bufflehead, American Golden-eye, White-winged Scoter, American Merganser, Red-breasted Merganser, Hooded Merganser. Of these the most numerous have been the Greater Scaup, Lesser Scaup, Black Duck and American Golden-eye. Three Shovellers, noted by Mr. F. C. Lincoln, on December 16, near the Potomac River at Difficult Run, form the latest local record that we have, since no one has previously reported the species beyond October 28 (1887). The Bufflehead, noted by Mr. E. A. Preble near Dyke, Virginia, on December 29, is also an interesting occurrence as the species is not very common in this vicinity.

The Whistling Swan, which for several years past has regularly visited the Potomac River below Washington, returned to Widewater, Virginia, about October 20, so we are informed by Miss

Pickett Waller, whose previous observations on this Swan at the same place have been recorded in these columns. In December of this winter there were several hundred individuals about Widewater, although they did not feed so near the shore as has ordinarily been the case. The majority of these birds disappeared about December 25, and Miss Waller has seen only an occasional individual since that time. The increase in the numbers of the Whistling Swan as indicated by its reappearance on the Potomac River during the past few years is one of the most interesting developments of the protection afforded waterfowl by recent protective legislation.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

MINNESOTA REGION.—The weather during the past two months has been abnormally mild for the time of year. There have been no considerable falls of snow and none that has remained on the ground in the southern part of the state, and only six to twelve inches in the northern counties where it is usual to have three or four feet at this time of the year. At the present writing the ground is practically bare in the southern half of the state and the ice on the lakes is only fifteen to eighteen inches thick compared with nearly three feet last year. Not for many years has there been such a mild, snowless winter. The Mississippi River below the Falls of St. Anthony has not been frozen and only rarely has it been cold enough to make the rapids 'steam.'

Generally speaking, there has apparently been a more than usual scarcity of bird-life thus far this winter, only one or two observers reporting any considerable number of birds. This applies not only to winter visitants but also to the familiar resident species. Thus the now large number of bird-lovers who maintain feeding stations have, with few exceptions, been disappointed in the number of their callers. May it not be that, in the case of the resident birds, they are really here in normal numbers but that the mild weather and absence of snow make it

possible for them to take care of themselves without resorting to the proffered larders? A correspondent from far-away Pennsylvania, where conditions seem to be about the same, takes this view for granted: "It has been so mild here this winter that the birds haven't needed us and with the exception of the ever-present 'Downies,' a few Juncos and Tree Sparrows, we see none of our usual goodly company. What is their gain is our loss and I suppose we should be glad they are not forced to come to us for help—but we do so love to have them."

Reports indicate that more individuals of the half-hardy species—birds that largely desert us during severe winters—have remained in the North this year. Word has been received of the presence at various places in southern Minnesota of numbers of Tree Sparrows, Juncos, Brown Creepers, Red-winged Blackbirds, Horned Larks, Crows and less numerous of Rusty Blackbirds, Grackles, Golden-crowned Kinglets, Red-headed Woodpeckers, Wilson's Snipe and still more rarely of an occasional Meadowlark, Flicker, Robin, Bluebird, Mourning Dove, Kingfisher and Marsh Hawk. A few Mallards have remained in open water in some of the streams and this Duck was present at Heron Lake "in immense numbers" until a few days after the middle of December. Lake Superior has remained unfrozen and there are present there many Golden-eye Ducks, Oldsquaws, Mergansers and Herring Gulls. Crows, which usually leave the state during the winter, have been common and widely distributed.

Of special interest are reports from Pipestone County (Mr. Alfred Peterson) and Lincoln County (Mrs. J. S. Campbell), in the extreme southwestern corner of the state, that the Horned Lark is wintering there in large numbers. Mr. Peterson writes from Pipestone under date of February 14: "On Sunday, January 30, I heard and saw many Horned Larks scattered in many places on plowed ground, such places being preferred to pastures during colder weather or time of snow. In a field three miles east of town I found



about 150 of them, as near as I could estimate, and about 300 Longspurs in one flock." And on the following day they "were to be heard and seen almost everywhere, particularly in pastures, being more numerous on the whole than heretofore. They seemed to be in full song, many standing on stones or clods of earth while singing, and I noticed one soaring to a height of 200 feet, just as they do in the spring (thermometer 54° plus at 2 P.M.)." The particular interest in this is that this bird has of late years been very scarce in many places where it was formerly abundant.

Winter visitants have thus far not been numerous. Snowy Owls have appeared in limited numbers, only seven reports to February 15, the most southern being from St. Peter, well down toward the Iowa line. Only five reports of Evening Grosbeaks, three of Pine Grosbeaks, six of Bohemian Waxwings, five of Snow Buntings and three or four of the Northern Shrike. Redpolls have been nowhere abundant and reported from only three localities. Lapland Longspurs have been noted at two places in the western part of the state, Mr. Peterson stating that they are wintering in large numbers in the vicinity of Pipestone, Pipestone County.

Several correspondents continue to report seeing unusual numbers of Prairie Chickens. Mr. H. J. Jaeger writes that he saw, not long since, a flock of at least 150 in each of three southwestern counties and many additional scattered birds.—THOMAS S. ROBERTS, *Zoological Museum, University of Minnesota, Minneapolis, Minn.*

CHICAGO REGION.—This region has enjoyed the mildest January since 1906 and this weather still prevails. The coldest time during the recent period was the last week in December when the mercury dropped to around zero. Since then the temperature has averaged about thirty degrees.

This weather seems to have kept away the usual winter birds from the North as

no Redpolls, Siskins or Crossbills have been reported. The only one here is the Northern Shrike. One seen at Beach by Mr. Gregory, December 26 and one at Willow Springs, January 8 by Mr. Abbott. However, a number of birds that generally go south are staying here for the winter. Mr. Gregory reports a Lincoln's Sparrow at Beach, December 26 and Mr. Sanborn, a Flicker, February 6. Meadowlarks and Bronzed Grackles have also been reported from here. On January 4 a hunter was arrested here with a young Black-crowned Night Heron which he had just shot. The specimen came into the possession of Dr. C. W. G. Eifrig, who preserved it.

West of the city, about at La Grange, Song Sparrows and Meadowlarks are reported and at Oak Park on February 6, Dr. Eifrig reported a Fox Sparrow and a Robin. In the sand dunes of northern Indiana a Rusty Blackbird and Bonaparte's Gulls were seen by Dr. Lewy on December 15. Messrs. Coffin and McBride report two Bluebirds here January 22.

Other birds of interest for this time of the year are Saw-whet Owl, Rough-legged Hawk, Red-headed Woodpecker and Brown Creeper, seen by Mr. G. A. Abbott about Willow Springs, January 8.

The common winter birds are here in their usual numbers, including Cardinals, Prairie Horned Larks and the winter Ducks, Mergansers, Golden-eye, Old Squaw and Scoter.—COLIN CAMPBELL SANBORN, *Chicago Ornithological Society, Chicago, Ill.*

KANSAS CITY REGION.—Midwinter has been marked by most unusual warmth. During the entire current period there have been scarcely ten days of cold, but comparatively few birds have been present to enjoy the fine open weather. Unusual numbers of Doves in large flocks and scattered over a wide area have been found wherever there are suitable feeding places, and at least one flock of Grackles, containing about two dozen birds, has wintered within the southern city limits. This bird does not stay here in winter in numbers except under the most favorable circum-

stances. Two other species not commonly found here at this season, the Kingfisher and Catbird, have both been noted, the former in some numbers. A lone Catbird wintering in the neighborhood of the Country Club constitutes the only known local winter record for this species. Cross-bills, Waxwings and Siskins, so common during recent winters, have been noted this season only as stragglers, and not a single Purple Finch has been recorded.

Ducks stayed late and returned early. The last large flocks of south-bound Mallards were seen late in December, and by the middle of January impatient hordes of Pintails were noted congregating in restless rafts on the Missouri River. William Andrews writes from the Courtney region that on January 25, at 5 P.M., the river near his cabin was filled with immense flocks of resting Pintails with a few Mallards mixed in. By actual count there were in sight at one time 43 flocks containing from 50 to 500 individuals each, and by dark these were being increased by the continual arrival of fresh hundreds. Canada Geese were noted in some numbers in late December and early January, birds that were doubtless wintering in this immediate neighborhood.

Migrating Bluebirds and Robins, impelled by the balmy winter weather, moved into the city in numbers, and were singing early in January, perhaps a month in advance of their normal time of arrival.

Notes of interest received from Mr. A. Sidney Hyde, of Topeka, Kansas, indicate that a few Meadowlarks and Grackles wintered in that region, and that an early movement of north-bound Geese was noted.—HARRY HARRIS, *Kansas City, Mo.*

**DENVER REGION.**—This report will be of value only because of its negative characteristics, since it shows that this region has shared in the actual or relative paucity of bird-life which has been so frequently reported from the eastern states during the past winter. The writer cannot recall any other winter in Colorado during the past twenty-five years, with so little bird-life about Denver, all of which is

substantiated by his notes. This cannot all be due to his inability to be in the field as much as he wishes, for during other winters he has been equally busy in his vocation, without noticing so few birds. There have been, for example, no Chickadees or Long-eared Owls in the city, and very few Juncos (of the latter), principally the Montana form. Usually the Pink-sided and the Grey-headed Juncos are abundant hereabout all winter, yet during the past eight weeks they have been very rare about Denver.

A twenty-mile motor ride in and about Denver any time between November and April should disclose hundreds and hundreds of Tree Sparrows and a goodly number of Song Sparrows, yet such a ride on December 25 uncovered but one Tree Sparrow and three Song Sparrows. It seems undeniable, from the writer's experience, that there have been both fewer species and fewer individuals in the bird population of this region all this winter. It is his belief that an ordinary day to day survey of the neighboring foot-hills and adjacent streams would show that our urban winter bird population had this year remained suburban.

The two months embraced in this report have been mild, sunny, and with but two light snowstorms, all of which may in part account for this suburban drift. Robins returning during the past week (February 13) may indicate the approach of the northward advancing Robin army. Two resident outposts of this army were seen in Denver on December 29, which, however, is not an extraordinary record. The species which delights the writer most by its return in numbers in the early spring is the Meadowlark, ten of which were noticed at the eastern edge of the city on February 9. He believes that our spring migrants will appear earlier than usual this year.—W. H. BERGTOLD, *Denver, Colo.*

**SAN FRANCISCO REGION.**—After three dry winters, the northern part of the state is rejoicing in an abundant rainfall. It is difficult to estimate to just what extent



this condition has affected bird distribution without reports from all sections of the state. In the Bay Region, there is an apparent reduction in the number of Ducks on Lake Merritt and on the lakes in Golden Gate Park. This affects particularly the fresh-water species, as Canvasbacks on Lake Merritt show no decrease, while Pintails, according to Mr. Dixon, are about two-thirds as numerous as heretofore. The very abundance of fresh water in inland lakes and flooded areas might very well account for this diminution as it increases the territory affording appropriate feeding ground.

The land birds which show the effect of increased rainfall are the Bluebirds, Western Robins and Varied Thrushes. They are not conspicuously more abundant but they certainly are more scattered, since they can dig worms anywhere regardless of lawn sprinklers or irrigation systems. The western Robin, this winter, is a duplicate in behavior of its eastern cousin, as it hops about the lawns in the residence section instead of being limited to the neighborhood of berry-bearing trees or shrubs.

One wonders whether Golden-crowned Kinglets and Red-breasted Nuthatches are mutually exclusive. Last winter Nuthatches were abundant but Golden-crowned Kinglets were very scarce. This year the tables are turned as the Kinglets are abundant but Nuthatches are missing. Perhaps the cones provide nothing but worms this year. Crossbills are also lacking so far. Flocks of Cedar Waxwings have been small and those of Bush-Tits very large. One is at a loss to account for the apparent shortage of Hermit Thrushes and Pipits. The latter are probably congregated somewhere in the Bay Region but have been few and far between in Berkeley. Perhaps they prefer dry slopes where the seeds have not all sprouted.

Among the rarer land birds are the Orange-crowned Warblers, reported by several observers, Say's Phoebe (December 3), Western Gnatcatchers, again confined to a Claremont hillside, a White-throated Sparrow, on the campus of the University

of California, and a Western Mockingbird, observed in Oakland repeatedly between December 19 and January 16, by Miss Margaret Wythe.

Among water birds one might mention the Green-winged Teal and European Widgeon on Lake Merritt, the abundance of Western Grebes on San Francisco Bay, and the frequency with which Gulls are seen in the parks of San Francisco and about the school grounds and University campus in Oakland and Berkeley.

On the whole, the midwinter visitants (which always exceed in number the midsummer residents) seem to me to be somewhat below the average both as to number of species and of individuals.—AMELIA S. ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—December was characterized by fine, mild weather with very little light rain, the storms that were so frequent on the northern coast not reaching this region until January.

The Mountain Plover, reported in the last issue, remained in the locality where they were first seen throughout December, and were still there in very large numbers January 12. December 10, a Golden-crowned Kinglet was seen near the Arroyo Seco. This is the only record we have of a resident of the higher altitudes seen in lower regions this season. Townsend's Warblers have been several times reported from the Arroyo region, Echo Park, and in Pasadena gardens. A Pileolated Warbler has remained in Sycamore Grove throughout December and January. On December 24, a female Phainopepla appeared in a garden where it has lived for two winters past. The pair of Blue-fronted Jays that nested in Griffith Park are still there with their two full grown young, and are tame enough to come down to share the luncheon of some of the park men.

The Chinese Spotted Pigeon introduced some years ago seems to have become established in certain foothill localities where it is seen and heard at all seasons of the year. In December a Golden-winged Flicker came in company with several of the Red-shafted, to the Museum Building

in Exposition Park to eat the berries of the Virginia creeper on the walls, near the office windows, from which it was observed and fully identified by the Curator of Ornithology. In the open country many large flocks of Pipits, Horned Larks, Meadowlarks, are seen, as well as Western Larks, Chipping, Vesper, and Savannah Sparrows, and the usual Gambel's and Golden-crowns. A Cassin's Kingbird was seen December 12, and a flock of Willow Goldfinches in the olive-brown winter plumage. Large colonies of Crows have been reported from three different localities, and the Ferruginous Rough-legged Hawk several times.

Mountain and Western Bluebirds, Cedar Waxwings and Western Robins are occasionally seen, and California Purple Finches are abundant since the storm of January.

On January 12, Mrs. F. T. Bicknell and two other observers found on the Franklyn Cañon Reservoir a Holboell's Grebe and a European Widgeon, both of which are very rare visitants to this region. Many Ducks were on the lake, Green-winged Teal being most largely represented, their number being estimated at two hundred. Another party, of which the writer was a member, had a good observation of the Grebe a few days later and also examined specimens in the Museum. They all believe the identification was correct. January 23 was a day of partially clearing weather, following the severest

storm of the winter, which blanketed the mountains with snow, and, as in past seasons under similar conditions, Tree Swallows flocked into Echo Park in hundreds, circling about above the lake. Flocks of White-throated Swifts were noticed January 26 and 31. Nuptial flights of Anna's Hummingbird were very frequently noticed during December and January, and the females were seen gathering nesting material. February 2 a half-constructed nest was found and the bird observed at her work.

Very heavy gales along the coast the first week in February resulted in an unusual assemblage of birds in Santa Monica Bay. On February 7, our party of observers found there about fifty Western Grebes, about twenty Red-throated Loons, three or four Common Loons, with a few of the smaller Grebes, and one Royal Tern. Surf and White-winged Scoters, American Mergansers, Cormorants and Brown Pelicans were represented by small numbers. Out-numbering all other species combined were the Gulls. Californias were most numerous, and after them the Ring-billed. About ten Herring, five Glaucous-winged, a few Western, Heermann's and Short-billed Gulls completed the list. It was truly a scene of 'Wild Wings,' when all the Gulls were in the air above a sea of glorious color and life, the wind whipping off the spume from the flying surf.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*





# Book News and Reviews

SUPPLEMENT TO THE BIRDS OF ESSEX COUNTY, MASSACHUSETTS. By CHARLES WENDELL TOWNSEND, M.D. Memoirs of the Nuttall Ornithological Club, No. V. Cambridge, Mass., Aug., 1920. 196 pages; one plate and one map.

It is significant of the ever-increasing interest taken in ornithology that nearly 200 pages are required to cover the information acquired in the fifteen years which have elapsed since the publication of Dr. Townsend's 'Birds of Essex County.' With a large number of junior amateurs as competitors, Dr. Townsend has continued active field work and is still the leading authority of his locality, able to judge and weigh the value of the numerous sight records. The result is one of the most convincing and valuable reports on a local area which has appeared since sight records have enormously outnumbered those based on specimens taken. There is a most interesting preliminary chapter on 'Changes in the Bird-Life of Essex County since 1905,' a second, containing censuses of nesting birds and migrating Warblers in various restricted areas, and the bird-life of several ponds; while the third chapter presents the more noteworthy migration dates, records of occurrence of the rarer species, etc., of the past fifteen years. An excellent feature of the book is a brief recapitulation of the status of every species, even when no additional information has been obtained. The author's wide field experience is evidenced by many pertinent and interesting comments on life-history and field characteristics written in his usual easy and simple style. With all sight records of rare species, even unusual or extreme dates, the observation is given with as much detail as necessary and full credit is given to the observer. Many amateurs would do well to note that no observations are given in greater detail than those of Dr. Townsend himself, in spite of the fact that in years, knowledge, and experience, he outranks every other student in the county, and

that his mere word would carry much more weight than theirs.—L. G.

BULLETIN OF THE ESSEX COUNTY ORNITHOLOGICAL CLUB, Vol. II, No. 1, Dec., 1920. Salem, Mass. 54 pages; two plates.

This second number of the Bulletin shows that the Essex County Ornithological Club has fully lived up to the promise of its first year. The record of its regular meetings shows an average attendance of over twenty, an example which far older organizations might well envy. 'Notes on the Lincoln Sparrow,' by E. H. Forbush; 'At a Food-Shelf,' by Albert P. Morse; 'Variations in the Song of the Whip-poor-will,' by Rodman A. Nichols; 'Notes on the Ipswich Sparrow,' by C. J. Maynard; 'Imitative Construction of Birds' Nests,' by Edmund S. Morse; 'Notes on Bird Nests,' by Walter E. Bates; 'On the Nesting, Song and Play of the Tree Swallow and Barn Swallow,' by C. W. Townsend, M.D.; 'The White Gulls at Swampscott,' by Arthur P. Stubbs, are all pleasantly written, informative, or interesting papers.—L. G.

## The Ornithological Magazines

THE AUK.—A leading article in the January *Auk* is 'The Dickcissel (*Spiza americana*) of the Illinois Prairies,' by Alfred O. Gross. We have here the first part of a detailed study of this interesting bird which has completely disappeared from eastern localities where it formerly bred, but is abundant farther west, apparently increasingly so in places. The Dickcissel is "preëminently a bird of the meadows, where, for the state (of Illinois) as a whole, its concentration is 81.2 birds to the square mile." The dense low vegetation of this type of land provides it with congenial nesting-sites. Fence-posts, telephone wires, etc., adjacent to the nest are favorite singing stations for the male bird. From here he delivers his short unmusical

song, which gives the species its name, with remarkable persistence through the day, despite the midday heat, averaging seven or eight times per minute. The male takes no part in construction of the nest or care of the young. In fact, in one case when his mate was killed by a Sharp-shinned Hawk, a male continued regular singing while the near-by young starved to death. This article is illustrated with four full-page plates, photographs of habitat, and nests with eggs and young.

Harrison F. Lewis (in a paper which is to be continued) gives a detailed narrative of the behavior of a nesting pair of the Philadelphia Vireo near the city of Quebec, beginning with the nest under construction. There is a careful summary of the known occurrences of the Bohemian Waxwing in New England by Horace W. Wright, who met with this species in Massachusetts in the late winter of 1918-19.

More technical are 'Notes on *Ortalis vetula* and Its Allies,' Miller and Griscom, reviewing this genus of Guans which are game-birds replacing the Grouse, to which they are unrelated, in the tropics of the New World. Oberholser finds that the Holboell's Grebe is not a distinct species but a race of an Eurasian bird, as the Wilson's Snipe is of the Old World Snipe. Little Brown and Sandhill Cranes are races of the same species; but the American Bittern, though that bird's representative in America, is distinct from the European Bittern. He also separates a northern from a southern race of Blue Jay. There is an account of the 38th meeting of the American Ornithologists' Union held in Washington, by T. S. Palmer, its Secretary.

Under the general heading of faunal papers may be classed one on the birds of Hatley, Quebec, in 1919, by Mousley, as also some of the general notes. Among numerous records of unusual occurrences in 'General Notes' are three of the Arkansas Kingbird in Atlantic states—Massachusetts (September and November) and New Jersey (November). These corroborate a record from Montauk, New York, in the BIRD-LORE Christmas Census, which see. Judging from dates of migration of our

eastern Kingbird it would seem that these stragglers far from their regular migration route are at a loss to find their way south. Charles L. Whittle describes a nest of the Water Ousel placed on a horizontal timber under the eaves of a lean-to directly over and some eight feet above the water of a small stream flowing through Fort Bidwell, California.—J. T. N.

THE WILSON BULLETIN.—The September, 1920, number contains 'Some Interesting Records of Nebraska Birds for the Year 1919,' by Clarence E. Mickel and Ralph W. Dawson, in which four species are added to the state, based on specimens secured. David C. Hilton gives some 'Notes on the Birds of the Fort Leavenworth Reservation, Kansas,' based on very fragmentary observation during the spring of 1919. Only eighty-two species were noted, but some interesting local information about several was secured, showing that lack of opportunity is often more apparent than real. Dayton Stoner discusses the frequency of Whip-poor-will calls, and Wetmore publishes an addition to his list of birds observed near Minco, Central Oklahoma.

In the December issue Alvin R. Cahn lists 108 species observed in Itasca County, northern Minnesota, from mid-July to mid-August, a useful record in a region where civilization will inevitably work much havoc. Howard Clark Brown presents interesting evidence to show a northward movement of the Cardinal in north-central Iowa, and W. G. Ericksen gives some breeding habits of three birds of Chatham County, Georgia. We note that the Ground Dove has decreased nearly to the point of disappearance without any obvious explanation, just as has been recorded in northwest Florida. P. B. Peabody contributes a long review of the 'Migration Records for Kansas Birds' by Bessie Price Douthitt, published in previous numbers of the Wilson Bulletin. The improbability of many of the statements, and the fact that the data given did not support other statements was noted by the present reviewer in a previous issue of this magazine.—L. G.

# Bird-Lore

A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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Bird-Lore's Motto:

*A Bird in the Bush Is Worth Two in the Hand*

THE nature lover who would live in complete harmony with his environment must find no small difficulty in explaining satisfactorily the warfare which exists between man and his fellow-creatures. So far as birds are concerned, wholly aside from direct destruction for sport, food, or feathers, the advance of what we call civilization is inevitably marked by the gradual retreat or entire disappearance of those species which for one reason or another cannot endure contact with man.

The mere presence of man is often sufficient to drive away the wilder birds and the motor car, motor boat and airplane have so increased man's ubiquity that one must now travel far to get beyond the sound of exploding gasoline. Marshes are drained, forests are felled and even the trees that remain have their nesting-cavities filled with cement and their foliage sprayed with poison.

Returning to an oft-frequented winter resort in Florida we went to call on a Screech Owl and Flicker which, the year before, we had left peacefully occupying homes in opposite sides of a cabbage palm stub, only to find that the Village 'Improvement' Society had replaced the dead tree with a living one. The general effect for the casual observer was no doubt 'improved,' but heedless improvements of this kind only sacrifice superficial appearances to the things that are really worth while. The little Owl sitting in grim quaintness at his door had made a host of

friends during the preceding winter and his place could not be taken by another palm tree exactly like a hundred others in its row. Fortunately, in this instance, those responsible for the birds' eviction were more than ready to repair an unwitting error and homes hollowed from palm logs were placed near the site of the stub. Within a week one was occupied by a Screech Owl and the other by a Flicker; possibly *the* Owl and *the* Flicker that had been dispossessed. Incidentally there is a lesson here, for the case admirably illustrates how improvements and regard for the rights of other creatures may go hand in hand.

From the Owl's home one may look out over the waters of the Atlantic where daily are being enacted countless tragedies in bird-life which are perhaps the saddest of any for which man is unintentionally responsible.

We have all heard of the gradual substitution of oil for coal as fuel on steamers and have learned with satisfaction that this step in human progress would make unnecessary the killing work of stokers at flaring furnace doors in the bowels of a ship. But we did not realize that oil-burning or oil-bearing vessels in cleaning their tanks at sea spread a death-trap over the waters in which thousands of birds meet their fate.

Today (February 25) the east coast of Florida is strewn with dead or dying Loons, Horned Grebes, Brown Pelicans, Gannets, Gulls and Terns whose plumage has become so clogged with crude oil as to be functionless. A Brown Pelican, that looked as though it had been dipped in a tar-barrel, was a subject for the kodaks of thoughtless tourists at Daytona Beach who seemed not to realize the bird's hopeless plight, for birds thus affected must die by starvation.

We understand that an appeal has been made to the Department of Commerce to instruct the captains of steamers not to clean their oil-tanks within twenty miles of land, but even should they comply, the birds of the high seas will still fall victims to the onward march of civilization.



# The Audubon Societies

## SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y.

### STRUCTURE AND HABIT

With Photographs by the Author

Discussing the bird as a flying machine, we endeavored, in the last number of BIRD-LORE, to point out how all birds are intrinsically alike in their general structure because of the physical requirements of flight. It remains for us, now, to call attention to the differences in the structure of birds arising from their varied habits, especially those of procuring their food. Whether the differences in the form of bills and feet that are found among birds are due to their different methods of securing their food, or whether it is the other way around, and their method of feeding is due to the differences in the structure of these parts, is a disputed point which we will not try to settle here. Suffice it to say that the majority of scientists today believe that modifications of the individual bird which are the direct result of its environment are not inherited but that the process of 'Natural Selection' or the 'Survival of the Fittest' serves to weed out those birds which do not show adaptations to their mode of living, and the result is the same. That is to say, the differences in the form of bill, and feet, and wings that we are familiar with today are the sum total of a great many little and big variations that have been preserved through the course of evolution because they were adapted or well suited to the mode of life of the bird. That a beautiful adaptation between a bird's structure and its mode of life does exist, there can be no doubt, and one of the most interesting studies in ornithology is the endeavor to learn the reason for each little peculiarity of structure that we find in our familiar birds.

The changes or adaptations that have occurred in the evolution of birds have been for the most part gradual. This is evidenced by the fact that today the birds that have arisen from common ancestors are still, for the most part, more like each other than they are like other birds, in spite of their diversity of habits. Were it not so it would be impossible to group birds into orders and families. The fact that some birds have been more plastic than others in their adaptations and have developed parallel with unrelated birds of similar habits, causes many of the difficulties in our present scheme of classification. Thus the Hawks and Owls are really very distantly related, the Owls probably belonging with the Nighthawks and Whip-poor-wills, but because of the Owls' carnivorous habits, they look superficially like the Hawks and are still put with them for the sake of convenience by many American ornithologists. Herons, Kingfishers, and Terns, likewise, have bills that are much

alike, adapted to spearing fish, but in other respects they are very different and no one would think of calling them closely related.

A good example of divergent evolution, on the other hand, occurs among the Gulls, Terns, and Skimmers, which are really closely related as shown by their anatomical structure, forming the order *Longipennes*, but which have bills which are extremely different in form, probably because of their different feeding habits. Shrikes, Grosbeaks, and Warblers, of the order *Passeres*, likewise, are similar in all their structures except their bills, and it is natural to suppose that they had a common ancestor and that their variously shaped bills have arisen as adaptations to particular feeding habits. But, as before intimated, it may be that the history of these birds was the other way around,



BLACK TERN

KINGFISHER

GREEN HERON

Similar feeding habits have produced similar bills in these birds, which are but distantly related

and that these diverse bills have persisted from the thousands of possible variations of their ancestors because the individuals were able to adapt their habits to fit their modified structures. Indeed there is much evidence to support the belief that both factors have been important in the course of evolution.

Irrespective of how the changes have come about, let us consider some of the structures or implements of birds in relation to the birds' methods of life. Let us suggest in a few paragraphs a field that promises rich rewards to the careful observer.—A. A. A.

## THE IMPLEMENTS OF BIRDS

With Photograph by the Author

When one passes through the halls of any of our large museums and inspects the collections of mounted birds from all over the world, one is impressed by the great variety of form and color. Almost every imaginable combination of colors is found represented in the plumage of some bird, and the many modifications of size and shape are such as to leave one confused by the heterogeneous assemblage. One is almost led to believe that Nature has given loose rein to her imagination and allowed her most fantastic dreams to take the form of birds. Yet we are constrained to believe that there is a reason for everything, that no structure exists unless perfectly adapted to the function which it has to

perform. The varied colors of birds we may consider at another time; in these paragraphs we wish to consider some of the modifications of bill and feet, the implements of birds.

The long legs, slender neck, and the great humped bill of the Flamingo, we are told, are eminently adapted to its peculiar method of feeding on the minute mollusc life of the tropical mud-flats where it lives. The tremendous bills of the



BLACK AND WHITE  
WARBLER

WHITE-WINGED  
CROSSBILL

EVENING GROSBEEK

Diverse feeding-habits have brought about the very dissimilar bills in these closely related birds. Note also the differences in their eyes

South American Toucans and African Hornbills serve as arms for reaching far out to the smaller branches for the fruits upon which these ungainly creatures feed. But let us consider the commoner of our North American birds with reference to their food and see if there are similar reasons for their variety of form.

The Hawks, with their strong, hooked bills, sharp talons, and powerful wings fitted for the pursuit of small birds and mammals, we have already mentioned, and have noted that the type of bill and foot are so necessary to birds having a carnivorous diet, that the Owls, though unrelated, have developed similar structures. One group of the common perching birds, the Shrikes, have taken up a carnivorous diet and have likewise developed hawklike bills, although their feet are of the ordinary perching type and are not used to assist them in securing their prey. The Vultures, on the other hand, which have degenerated from a strictly carnivorous diet to one of carrion, while retaining the hooked bill for rending flesh, have lost the powerful talons and the accompanying strength of limb through disuse, so that now they even spring from the ground with difficulty.

But, if one examines more closely such a group of birds as the Hawks, all having the same type of food, one discovers differences of form of body and wings according to their method of securing their prey, as was pointed out in the last number of BIRD-LORE. There are, for example, those like the Red-shouldered and Red-tailed species, which find their quarry while soaring high in the air with their keen eyes fixed upon the ground. These have broad,



rounded wings, fanlike tails, and rather heavy bodies. Others, like the Marsh Hawk, beat back and forth close to the ground, seldom if ever soaring, and these have long narrow wings and slender bodies. Still others like the Cooper's and Sharp-shinned species, remain perched on some outpost awaiting the approach of their quarry and then dart out after it, and these have short, rounded wings for sudden bursts of speed.

Another group of animal feeders are those which feed upon fish, frogs, and crayfish. Practically all have long, pointed, javelin-like bills for spearing their prey, but their various methods of catching the fish have brought about modifications of their other structures. The Herons and Cranes, which catch their fish by stalking them in shallow water, have long, slender legs for wading and long toes for distributing their weight and keeping them from sinking into the soft mud. The Kingfishers, on the other hand, which secure their fish by plunging from above, have little use for their legs and these, following nature's economy, have degenerated. The Terns, likewise, with similar habits, have weak legs, although the toes are webbed for swimming. The Gulls, which have become scavengers and seldom plunge for their food, have developed somewhat hooked bills for rending the flesh of the larger dead fish upon which they feed.

Another fish-eating bird, and one that plunges for its quarry, is the Osprey or Fish Hawk. This bird still retains the sharp, hooked bill characteristic of its family and so, instead of spearing its fish as does the Kingfisher, it catches them in its strong, sharp talons, and the soles of its feet are armed with sharp horny tubercles to cut through the slime covering the fish and keep it from slipping from its grasp. When the Osprey rises from the water with its prey and flies to some high tree to devour it, it has merely to continue holding it in its talons in order to tear it to pieces with its strong bill. But when the Tern or the Kingfisher rises from the water, the small fish is transfixed by the partially opened bill of the bird. (All of the fish which I have examined that have been speared by Terns or Kingfishers have shown the two holes made by both mandibles as in the



PINTAIL (CAPTIVE). A DABBING DUCK  
Note the relatively long, slender neck and small feet  
placed well forward

photograph of the Kingfisher with the small sucker on page 109.) Just how the bill is extricated is a mystery to me unless it is done under the water before the bird rises. Perhaps some observer, who has been more fortunate than I, can explain it.

Others of the fish-eating birds, such as the Loons and Grebes, are expert divers and pursue the fish beneath the water. They have powerful legs with strong webbed or lobed toes, the legs being situated far back like the propeller of a boat so that, although most graceful on the water, they are extremely awkward and almost helpless on land.



CANVASBACK (CAPTIVE). A DIVING DUCK  
Note the relatively short, thick neck and large feet  
placed far back

The group of insect-eating birds is large and varied, for there are many kinds of insects and many ways of securing them. Some insects live in the soft mud about shores and marshes, and for these the birds must probe; some live among the leaves and harder soil of the forest floor, and for these the birds must scratch. Others live within the trunks and branches of trees, and to secure these the birds must be proficient carpenters supplied with chisels for gouging. Still other insects spend most of their time darting hither and thither in the sunlight and these must be caught on the wing. Lastly, there are those insects that hide

in the grass or among the leaves of shrubs and trees, and these must be searched out with keen eyes. And so, among birds, we have probers in the Snipe and Woodcock, scratchers in the Grouse and Quail, borers in the Woodpeckers, flight-feeders in the Swallows, Swifts, and Nighthawks, and gleaners in the Blackbirds, Thrushes, Vireos, and Warblers. In each group of birds we find those modifications of bill, feet, wings, tail, tongue, and eyes which best fit the birds for securing the insects in their particular way.

Among the vegetable feeders the largest number live upon seeds and are of rather generalized structure except for their bills which are heavy and conical like those of the well-known Sparrows and carried to the extreme in the Grosbeaks. There are a few birds like our Hummingbirds, the tropical Honey Creepers, and the African Sunbirds which take a large part of their sustenance from the nectar of flowers. These birds have slender, probe-like bills and more

or less tubular tongues modified so as to be best suited for sucking the nectar from the various-shaped corollas of the flowers. Among the five-hundred-odd species of Hummingbirds we find almost every conceivable variation in the shape of the bill, from those like *Docimastes*, with probes nearly three inches long for sucking the nectar from large tubular flowers, to those of the tiny *Rhamphomicron*, with a bill scarcely half an inch in length, so short that the Hummer alights on the base of the flower and pierces the nectary in an unlawful way. A few Hummingbirds have curved bills, one almost sickle-shaped, and others slightly upturned, and all are adapted for feeding on particular flowers.

Other vegetable feeders are found among the water-fowl, a considerable part of the food of many species consisting of the leaves, stems, or roots of aquatic plants. Their broad, flat, fluted bills and their curiously fringed tongues are excellently adapted for sifting their food from the silt and water, and their bills are so sensitive that they can locate their food no matter how roily the water or how dark the night. One group of Ducks called the Diving Ducks find their food in deep water and it is



YELLOW-BELLIED SAPSUCKER, A DEGENERATE  
WOODPECKER

The Sapsucker's tongue is no longer barbed and spear-like nor greatly protusible, but has become short and brush-like at the tip to assist in gathering the sap which forms a large part of the bird's food.

interesting to observe that in those species like the Canvasback and Scaup Ducks which dive without using their wings, the feet are placed far back toward the tail and are relatively very large. In the species like the Old Squaw that use their wings under the water and in all of the Dabbling Ducks, like the Mallard, Pintail and Teal, the feet are very much smaller. The Diving Ducks, likewise, have much shorter necks and stockier bodies than the Dabbling Ducks, another adaptation to their mode of life.

Finally, there are birds which feed almost entirely upon fruits, and a few, the Sapsuckers, which derive most of their nourishment from the sap of trees. This they secure by drilling series of small holes through the bark and establish-



ing regular 'sugar bushes,' visiting the different trees as often as the sap collects. Occasionally, it is reported, the sap ferments and the unsophisticated Sapsuckers are treated to a beverage which rapidly causes them to act in a questionable manner. Indeed one has been reported to have become so confused that it mistook a man's leg for the limb of a tree, and very often they fly into windows, or dash themselves against the sides of houses, or fly erratically through the trees as though they did not see very distinctly. Whether this is due to fermented sap or to some other cause, has never been definitely settled, and there is still plenty of opportunity for experiment and observation to establish the truth. The Sapsuckers are degenerate Woodpeckers, and although they still retain the characteristic bill, feet, and stiff tails, their tongues, instead of being greatly protrusible, spearlike, and armed with barbs as in the true Woodpeckers, have become split and brushlike for better gathering the sap.

Were we to consider fully the food of all species of birds, we would discover that there is scarcely an animal or vegetable substance that does not furnish the food of some group of birds. Between the Loons and Grebes that find their food at the bottom of the lakes, and the Swallows that dart over the trees, there are birds, probing in the soil, scratching its surface, turning over fallen leaves, gleaning through the grass and herbage, searching the leaves and twigs of shrubs, chiselling in the trunks of trees, and climbing about the branches; and each bird has some adaptations, some modifications, some implements that are fitted to its own peculiar food and method of securing it.—A. A. A.

## FROM YOUNG OBSERVERS

### BLACKCAPS IN OKLAHOMA

I am ten years old, and in the 4th-A grade at school, and since last February, a year ago, when Daddy brought home a copy of 'Bird-Life,' I have been very much interested in wild birds. Some time before that date, Daddy borrowed several copies of BIRD-LORE, and then subscribed for the dear little magazine.

Our home is in Illinois, on a farm, with plenty of trees, underbrush, shrubbery, and a big orchard, where the birds can build their nests, and we also have nest boxes for the Wrens and Martins, and window-boxes and feeding-shelves for the birds in winter. When we return home, we are going to plant bushes for seeds and berries, and a boulder bath-and-drinking place is to be placed on the lawn.

We have been living in this city since last October, and have only a small back yard, with just a few young trees, but we think that if we had put up the right kinds of bird-houses, and had put them up early enough, we would have had Martins and Bluebirds, and maybe Wrens, as well as the Chickadees.

Many of the birds here are quite different from those we have at home, while others look almost the same, and really belong to the same families. The

strangest bird here, is the Scissor-tailed Flycatcher, which is very often seen, even flying around in town, and sitting on the telephone wires. But they don't always "utter their loud, harsh, chattering notes, on the wing," for about two weeks ago, three of them sat in a row on a wire behind our house for quite a while and they all took 'turn-about' with their 'singing,' acting just like they were crowing. Among other new birds are: the Yellow-headed Blackbird, a much larger bird than the others of his family, and a better singer, though it sounds like he would choke in getting some parts of his song out; the Blue-gray Gnatcatcher, a neat, trim, sweet little bird, but too active to watch very long; the Lark, Sparrow and the Red-bellied Woodpecker.

Early one morning near the last days of March, Mother saw a pair of Black-capped Chickadees searching around our house for a suitable place for a home, one even going down in the top of a piece of pipe, used for a clothes-line post, and she said, "Now if there was a box on top of that pipe, I believe they would use it." Daddy went down town and brought home a small water keg, about a gallon-and-a-half size. After taking off the handle, and driving a cork in the small water hole, he bored a larger hole, just the right size for Chickadees, in the side of the keg near the top, and fastened it on top of the clothes-line post.

Daddy says the only 'fad' we have is birds, and you may be sure we were all watching, the next morning, hoping that the Chickadees would come back.

Sure enough they returned, looked the keg over very carefully, and then flew away, after staying about twenty minutes. The second morning they came again, and began at once to carry bits of damp grass into their new home, packing it down very firmly, and both kept at it until the keg was filled with short grass, almost up to the hole. Then they made a small hollow in the grass, at the back of the keg, opposite the hole, and lined it with bits of moss, string, dog hair, and cotton. They were having trouble to find lining for their nest, and Mother put out some little pieces of cotton, which the lady Chickadee seemed thankful for, and began to use at once.

Five tiny eggs were laid in this nest, and while Mrs. Dee-dee was sitting on them, we often saw Mr. Dee-dee bring a little green worm, or a bug and feed her,



THE CHICKADEE AND HIS KEG HOME

and they would then both fly away to a small park, near our house. Almost before we knew it, the little Dee-dees were out of the eggs, and making their 'sizzing' little calls for food, and the work of worm-bringing began in earnest, both Dee-dees being kept busy from early to late, trying to fill little yellow-edged pink mouths, that were always open, and always hungry.

After about two weeks the baby Dee-dees had been climbing up the inside of the keg, to look out of the hole, and each trying to be the first to get the worm, when it was brought, so Daddy wired a little perch across the keg, just below the hole, to see if it would help them to come out. In a few minutes the bravest little Dee-dee scrambled (or was pushed) out on the perch, shook himself, and at once flew to a near-by plum tree, where he began hopping from limb to limb, flirting his funny little tail, and looking so important. All four of the other Dee-dees followed the first one out of the keg, about one or two minutes apart, and all began to take little short flying trips, as fast as their little wings would rest up a bit, and seeming to worry their mama nearly crazy. They came out of the keg in the morning, and by the next morning, we saw no more of them, and we think the babies were guided to the little park, and there taught to hunt for the little green worms and white 'millers' that they like so well.

They were all such clean-looking birdies, just the image of their parents, but with short, cute little tails. Mrs. Dee-dee was a clean housekeeper, for we found no mites about their home, after the young birds left the nest. Daddy put up a larger keg, with a larger opening in it, for Bluebirds, and two smaller Wren houses, but although a Jimmy Wren came and looked them over, and a pair of dear Bluebirds have been here several times, the houses are all empty, and we fear that the closely-built-up part of a city is not the best place to have bird friends.—MARGARET PHILLIPPE, *Okmulgee, Okla.*

[One often wishes when he is compelled to move from one town to another that he could take his friends with him. In this story Margaret shows very delightfully how one who has bird friends does not have to move them for one finds them wherever he goes and it is easy to make new friends when he has good books to introduce them.—A. A. A.]





# The Audubon Societies

## EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City.  
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Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership  
\$100 paid at one time constitutes a Life Membership  
\$1,000 constitutes a person a Patron  
\$5,000 constitutes a person a Founder  
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

## REPORT ON THE NATIONAL PARKS SITUATION

In the last issue of BIRD-LORE an account was given regarding the attacks being made in Congress on the Yellowstone National Park. Bills had been introduced for the purpose of legalizing two projects whereby private parties could use the waters of the Park for commercial developments.

First, H. R. 12,644, introduced by Congressman Smith of Idaho, sought authority to build a reservoir covering 8,000 acres in the southwestern part of the Park. Another bill, introduced by Senator Walsh of Montana, known as S. B. 3,554, sought to secure in Congress authorization to dam the Yellowstone River and make a reservoir of the beautiful Yellowstone Lake. Smith wants water for irrigating lands in Idaho, and Walsh wants to use the waters of the Yellowstone River for irrigation north of the Park in Montana.

There would appear to be no reason why the waters of the Fall River Basin and the waters of the Yellowstone River could not be dammed up outside of the Park, but this is not what is wanted; for to do this the waters of the reservoir would cover lands, some of which would have to be paid for, whereas if the waters can be dammed up in the Park, no payment would have to be made, as the lands of the Park

belong to the public. What these men are after is free storage base for the water that they want to use for private commercial purposes outside the Park.

The plans which these men sought to carry out by means of Federal legislation would not only be detrimental to the Yellowstone Park, but the success of either would mean the setting of a precedent which would undoubtedly result in the eventual destruction of a large amount of the scenic beauty and interest of this territory, which nearly fifty years ago was set aside by Congress as an area in which the natural beauties of the region were to be forever preserved.

When through the publicity of this and other organizations the general public became advised as to just what was taking place, protests in the form of letters, telegrams and petitions by the thousands were sent to senators and congressmen, with the result that it was found impossible to further advance either bill.

That publicity killed the Fall River Basin project was admitted by Congressman Smith of Idaho at a memorable hearing before the Select Committee on Water Power of the House of Representatives on January 6, 1921, when many of us were present. Mr. Smith denounced the

Audubon Association and others for giving out, what he called misleading statements, and stated:

"That sort of information has been disseminated throughout this country, and has scared the members of Congress. Many members of Congress have come to me within the last two or three weeks, who were in favor of the Fall River Basin project last session, who now say: 'Now, Smith, we are in favor of this proposition—we were in favor of it before—but my people at home are so aroused that it would be political suicide for me to vote for it and I, of course, will not be able to vote for it.'"

To which Secretary of the Interior Payne, a little later replied:

"Let me say, first, about the timidity of Congress: Congress is accustomed to propaganda. I do not know of anybody in the world so capable of measuring the value of propaganda as the Congress. So that I do not think the members of Congress are terrified because of some propaganda."

To which Smith retorted:

"You ask any one of them, and they will tell you they are terrified and would be afraid to go home, almost, if they should vote for this bill."

In addition to the National Association of Audubon Societies, many other organizations and numerous individuals immediately took up the cudgel in defense of the Park. Chief among the other organized groups may be mentioned, the American Civic Association, which under the leadership of J. Horace McFarland, has been fighting battles for the Parks for many years; the National Parks Association, New England Conference for Protection of National Parks, American Game Protective Association, Mazamas, Sierra Clubs, and a committee of active men headed by Dr. George Bird Grinnell, of New York City. This Association sent out 25,000 circulars calling the attention of the public to the dangers that threatened the Park, and asking those who received the circular to file their protests with their senators and congressmen. Contributions were also asked for, the money to be used as a National Parks Defense Fund. The responses were immediate and effective,

and the thousands of protests of outraged citizens that poured into the Capitol resulted in stopping further progress of both of these bills and they died with the adjournment of Congress on March 3. On February 28, there was a Committee hearing on the Walsh Bill, on which occasion both sides of the controversy were heard. The Association was represented ably by our First Vice-President, Dr. T. S. Palmer. However, it never came to a vote in either House, but the Smith bill did pass the Senate and was more than once up for passage on the Unanimous Consent Calendar in the House.

Another measure in which we were greatly interested was a bill for amending the Water Power Act, whereby three members of the President's Cabinet had been authorized to grant water power concessions in National Parks. The amendment which we favored proposed to put this authority back in the hands of Congress. The move was bitterly fought by our opponents, but was carried in both Houses and the bill signed by the President. The sum total of the campaign to date is that the friends of the Parks were able to kill both the Smith and the Walsh bill, and had sufficient strength left to amend the Water Power Act as described above.

Action by the organizations interested in the preservation of the Parks and the wild life within their boundaries was not taken a minute too soon.

The contributions sent in to the Association have been sufficient to meet our immediate needs and have also enabled us to contribute financially to the expenses of two of the organizations with which we have been so intimately associated in this endeavor. It should be borne in mind, however, that while we have won the first battle, the opposition is gathering its forces for a new attack at the next session of Congress, and we shall have to make the fight all over again. Mr. Smith has already served notice that he is going to make another attempt to get possession of the Fall River section of the Yellowstone Park; in fact he is

reported to have stated he is going to introduce a bill to take this entire territory out of the Park, and should he succeed in this undertaking, it would, of course, then be easy to use the waters.

The following statement shows the income and expenditures of the Association's fund for National Parks Defense from December 9, 1920 to February 28, 1921.

FUND FOR NATIONAL PARKS DEFENSE			
INCOME—			
Contributions.....			\$5,977 50
EXPENSES—			
Printing and mailing 25,000 Circulars.....	\$1,503	53	
Postage on Circulars and Correspondence.....	501	50	
Expenses of Agent in Washington.....	82	70	
Slides illustrating National Parks.....	110	10	
Contribution to National Parks Association.....	600	00	
Contribution to American Civic Association.....	250	00	
Miscellaneous.....	3	52	3,141 35
Balance unexpended, March 1, 1921.....			\$2,836 15

## FEDERAL GAME LEGISLATION

Federal legislation in reference to birds and game has of late been confined almost entirely to the subject of appropriations for enforcing the existing laws.

The President of this Association, in company with representatives of various other organizations interested in wild life protection, appeared before the Appropriations Committee of Congress and asked for \$10,000 with which to protect the Mt. McKinley National Park in Alaska. This is a territory as large as the Yellowstone Park and although it contains an abundance of game animals, it does not have one warden to protect it. A railroad from the coast has been pushed up into the Mt. McKinley country and its completion next summer will mean that numbers of big-game hunters will visit the territory, hence the urgency for immediate action in the way of providing warden service. The Committee gave kindly attention to the proposition and in the end provided \$8,000 for the purpose.

The President of the Association and Mr. Holland of the American Game Protective Association appeared before one of the subcommittees and urged that the request of the Secretary of Agriculture for \$200,000 to enforce the provisions of the

Federal Migratory Bird Treaty Act should be granted. The Committee exhibited a charming indifference to the arguments of the speakers and in the end granted the same appropriation as last year—about \$145,000.

Scattered throughout Alaska are a few wardens that work under the direction of the Government. For years this department has been kept up by an annual appropriation of \$25,000. The House Appropriations Committee provided that sum for the present year, but the Senate cut away the entire appropriation.

The President of the Association happened to be in Washington at the time and at once visited various members of the Conference Committee of the two Houses of Congress to which the bill would be referred and strongly urged that the appropriation be retained. He also wired to New York for further help and representatives of the American Game Protective Association and the Camp-Fire Club immediately appeared in Washington on the same mission. It is pleasant to report that in the end the appropriation was put back so that we should still have some game protection in Alaska.



## TO PROVIDE FOR A DUTY ON IMPORTED CAGED BIRDS

The following is a copy of the brief submitted by T. Gilbert Pearson for the National Association of Audubon Societies to the Ways and Means Committee of Congress on February 20, 1921, relative to paragraph 416 in the tariff act, pertaining to and suggesting the advisability of a duty on imported wild birds.

The United States imported under normal conditions (prior to the war) nearly 500,000 live birds annually. These birds may be divided roughly into three groups, viz., Canaries, 360,000; game birds, 40,000; and miscellaneous cage birds, 60,000.

The Canaries were imported chiefly

from Germany. Other cage birds, the game birds, comprising mainly Quail and Pheasant, came chiefly from Europe, Canada, Mexico and the Orient. These game birds were imported for restocking game areas. The miscellaneous cage birds, included parrots, finches, weaver birds and a great variety of species of brightly colored small birds. These latter birds arrived from Europe, Africa, Australia, the Orient and a few from tropical America.

The following table shows the number imported for eleven years, 1908-18, including six years prior to the passage of the present laws and five years since the enactment of the law (see report of Biological Survey, Department of Agriculture.)

IMPORTATION OF BIRDS DURING THE YEARS 1908-1918, INCLUSIVE

Year	Canaries	Pheasants	Partridges	Quail	Other Game Birds	Miscellaneous	Total
1908	325,265	4,415	7,781	724	9,533	47,467	393,562
1909	338,256	2,996	29,895	868	2,009	41,414	427,777
1910	361,054	7,200	18,931	1,933	2,481	48,478	451,749
1911	354,858	13,399	39,986	3,753	2,340	64,338	475,264
1912	362,604	15,412	23,181	7,751	3,742	44,387	457,077
1913	392,422	9,417	10,283	2,936	2,829	59,477	476,364
1914	368,676	4,146	36,760		2,940	62,868	464,790
1915	216,037	15,841	7,080	3,341	5,345	25,747	266,587
1916	127,706			8,000	11,547	44,827	185,028
1917	16,471	832		32,814	42,514	46,015	93,519
1918	10,000	150		5,205	6,232	51,302	66,000

The figures for 1919 and 1920 are not at present available, but it is known that the importations have not yet reached the normal condition that obtained prior to the war.

### VALUE OF THE BIRDS IN QUESTION

Figures as to the value of the birds vary widely, depending on the species and the source of the shipments. The lowest appraisals are those of miscellaneous shipments from the Orient. The records of the Custom House in San Francisco show, among other consignments received during the quarter ending December 31, 1920, the following:

146 Parakeets, \$22; 15 cents each.  
130 Chestnut Finches, \$13; 10 cents each.

400 Strawberry Finches, \$32; 8 cents each.

150 Sociable Finches, \$5; 3 cents each.

205 Strawberry Finches, \$4; 2 cents each.

These birds are imported free of duty and when sold by retailers bring from \$1 to several dollars each, leaving a wide margin of profit between the value at point of shipment and the retail price. In bringing these birds into the country the importer needs only to secure a permit from the Secretary of Agriculture. Other than this there is no means of controlling the industry, and there is evidence to show that there is a large waste of bird-life through lack of proper care while in transit, or after arrival, or due to the fact that few foreign species are able to become acclimated in this country.

In order to more properly regulate traffic and also to produce an income to the Government from a source wholly untaxed and perfectly capable of sustaining a tax, the National Association of Audubon Societies for the Protection of Wild Birds and Animals recommends the following change in Paragraph 416, so as to read:

"Live wild birds, including land and water fowl, but not including game birds, domesticated food fowl or birds imported by public Zoological Gardens, \$1 each." (Or 50 cents plus 20 cents advalorem.)

By way of illustration, a Canary appraised at \$2 would pay \$1 duty under the flat dollar rate or 90 cents under the graduated rate. The same bird would retail at \$5 or more at present prices. A five dollar parrot would pay \$1 under the flat rate or \$1.50 under the graduated rate and would retail at from \$10 to \$25. It is believed that this rate of duty would produce a revenue of anywhere from \$200,000

to \$300,000 annually from a source which heretofore has yielded no revenue. This is more than Congress at the present time appropriates to the Agricultural Department for the enforcement of the Migratory Bird Treaty Act.

The charge of the flat dollar rate is to effect the low appraised value of birds in the Orient and from some European countries where currency at present is greatly depleted. Naturally it will be prohibitive in cases of birds less than a dollar in value, but the losses on the traffic will probably not be serious. A bird that is not worth a dollar is given little attention by dealers and the losses on these miscellaneous birds, from the time the birds were captured until they reach the retail store are numerous, and would probably reach 75 per cent in the first few months. Comparatively few of these birds thrive in captivity, and many thousands have lost their lives through experiments.

## STATE LEGISLATIVE MATTERS

This year the legislatures in forty-one of the states assembled. As usual this means much legislation that affects the wild bird life, and Audubon workers have much to do and to think about. Among the propositions that are up for consideration was a bill drafted by the Audubon Society of the State of North Carolina intended to establish a State Game Commission. Such efforts have been made by the Audubon Society for ten years past, but all attempts have failed for the reason that in North Carolina it has been an almost iron-clad, though unwritten law, that any representative in the legislature can ask for any kind of a game law or change in the existing game laws for his county that he desires, and through courtesy the legislature always lets him have it. The result has been that there has grown up a hodgepodge of game laws in that state which is marvelous and wonderful to behold. People often ask this office when the season for shooting Quail in North Carolina is. There is no way to answer this except to tell them to buy

copies of all the laws that have been enacted in the past ten years in North Carolina, go through these books and hunt out the latest law for the particular county in which they are interested. At the present time there is a county measure pending in the North Carolina Legislature that is being fought strongly, but this is because there is a division among the people themselves as to what they want. Such a situation is almost unheard of in that state, for as a rule people there take little interest in the game laws, one way or another.

If the Audubon Society can succeed in establishing a Game Commission with state-wide authority, it will undoubtedly be the most notable piece of state bird and game protective legislation that will be enacted in the year 1921. Just as this is going to press we learn that the Game Commission bill was defeated in the Senate.

In Florida a bill has been prepared for introduction in the Legislature by the Florida Wild Life Protective League, a

newly formed organization at Fort Myers. The moving spirit is Dr. George H. Stone, who with good judgment and knowledge is going about his task with full realization of the opposition he will have to meet. This bill is for the establishment of a State Game Commission and State Warden Force. Some years ago the writer coöperated with the Florida Audubon Society in working personally with the members of the Legislature in Tallahassee and succeeded in getting a State Game Warden Force established. Two years later, however, the law was repealed. Still later, with the splendid aid of Dr. Williams S. Blackman, then President of the Florida Audubon Society, we were able to induce the Legislature to again provide for a Game Commission, but the Governor vetoed the bill. So at the present time, with the exception of some county wardens who are practically worthless, so far as enforcing the law is concerned, there are no wardens in the state but those employed by this Association and a few provided by the Federal Government. In the meantime the game of Florida is fast disappearing.

In New York State a bill is pending which if passed will practically wipe out the splendid force of more than a hundred experienced game protectors, and turn the protection of game over to the State Police. It is inconceivable that the New York Legislature should adopt such a measure or if adopted that the Governor would sign it.

We have had much correspondence with people in Missouri where those supposed to be interested in the protection of wild life appear to be having royal battles, one group wanting to change the game laws and the other group wanting them to remain as they are.

The Association has maintained a lobbyist at the Massachusetts Legislature. At this writing nothing of a specially detrimental character has occurred there. On the other hand, it is pleasing to note that the prospects are good for getting an appropriation of \$4,000 to allow Mr. Forbush to go ahead with having drawings made for his monumental book on the birds

of Massachusetts. Another important game and bird bill in which we were actively interested was successfully conducted through the New Mexico Legislature of the New Mexico Game Protective Association under the able leadership of our friend Mr. Leopold.

In Virginia, North Carolina, Pennsylvania, Arkansas, Kansas and some other states, the subject of encouraging the killing of Crows, Hawks, and Owls by offering bounties has been up for consideration. These measures in some places are being backed up by the organized sportsmen's Associations, and it is regrettable to note that in some instances they appear not to recognize the fact that some species of Hawks and Owls are beneficial to man's interests, and on the other hand rarely if ever destroy game birds or game animals.

The subject of cat legislation is, of course, again under consideration in many parts of the country, just as it is every year when legislatures are in session.

To keep track of these various measures or even to handle the correspondence that reaches the office of the National Association in reference to state legislation is enough to keep one man busy.

### Good Work in Baltimore

The Maryland Audubon Society, under the energetic leadership of its President, Mrs. Baker Hull, is very active in bird work. Under the auspices of the Society, Chalmers Brumbaugh has given a course of public lectures on bird study and numerous field trips have been taken. Recently the Society secured from the office of the National Association a field glass and a series of fourteen bird books which will be offered as prizes in a bird-box contest that will be held among the young people of Baltimore. By an arrangement with the State Conservation Commission of Maryland, the boxes will be placed in the Loch Raven watershed territory where they will be of practical use in supplying homes and roosting places for the hole-loving birds of that interesting region.



## Audubon Exhibit in Tennessee

The Middle Tennessee Audubon Society recently held an interesting exhibit in the Tennessee Hermitage National Bank of Nashville. It included a large number of skins, nests and eggs of birds, also many mounted birds, pictures, charts, and original drawings. Prizes were offered for the best drawings of birds submitted and every measure was taken to insure an active interest in the exhibit by the general public. That the methods employed were wise is indicated by the very large attendance of people who visited the exhibit.

The officers of the Middle Tennessee Audubon Society are: A. C. Webb, President; Mrs. Katherine P. Wright, Secretary; Mrs. G. R. Mayfield, First Vice-President; Jesse M. Shaver, Second Vice-President; and Mrs. Sanford Duncan, Treasurer.

## New Life Members Enrolled from January 1, 1921, to March 1, 1921

Allen, Thomas  
Armstrong, George R.  
Baldwin, Miss Sarah B.  
Banks, George W.  
Bliss, Mrs. Robert Woods  
Bole, Mrs. B. F.  
Bowman, John McE.  
Corning, Mrs. John J.  
Dexter, Miss Alice S.  
Dove, J. Maury  
Draper, Eben S.  
Duryea, J. Frank  
Eddy, Mrs. J. Frank  
Edwards, Miss Hannah M.  
Foster, Francis A.  
Gannett, William H.  
Gillette, King G.  
Heurich, Charles  
Hicks, Mrs. John Jay  
Hollweg, Louis  
Hudson, Mrs. Kate W.  
Hunnewell, Mrs. H. S.  
Hutchins, A. S.  
Hutchinson, Mrs. F. B.  
Jennings, Miss Constance  
Kespohl, Julius  
Maxwell, Francis T.  
Meurer, Miss Mabel  
Miller, Mrs. Charles T.  
New, Mrs. Elizabeth R.  
Paine, Rev. George L.  
Russell, Richard S.  
Stark, H. J. Lutcher  
Stinchfield, Mrs. Charles

Thompson, E. L.  
Walcott, Frederic Collon  
While, Mrs. Thomas H.  
Wood, George

## New Sustaining Members Enrolled from January 1, 1921, to March 1, 1921

Acheson, Edward Campion  
Adams, Benj. H.  
Adams, Irving  
Allison, Mrs. George  
Ammidon, Mrs. D. C.  
Anthony, Edwin P.  
Audubon Society of Genesee  
Austin, Mrs. Willis  
Avery, Dr. H. T.  
Bach, Evielena P.  
Baxter, Hector  
Beale, Mrs. F. H.  
Berri, Mrs. Ethel P.  
Betham, Herbert L.  
Biddle, Mrs. Arthur  
Bishop, Mrs. T. H.  
Borchardt, Mrs. H. A.  
Braine, Miss Elizabeth A.  
Brandreth, Courtenay  
Bray, Dr. C. W.  
Breg, William G.  
Brewerton, W. A.  
Bronson, Barnard S.  
Brown, Edwin H.  
Brown, Lawrence E.  
Brown, Miss Sally Eugenia  
Buckley, R. Nelson  
Burnett, Charles  
Carlton, L. A.  
Carroll, J. J.  
Carter, Miss H. L.  
Carter, Shirley  
Champion, Mrs. W. J.  
Chase, V. H.  
Chauvenet, Mrs. Annie L. A.  
Chouteau, Mrs. Pierre  
Clark, Raymond Skinner, Jr.  
Coffin, Edward H.  
Comegys, The Misses  
Cook, Mr. and Mrs. Andrew E.  
Coonley, J. Stuart  
Cooper, Mrs. M. LeBrun  
Dana Natural History Society  
Davis, Clinton W.  
Dexter, Miss Mary L.  
Douglass, Francis S.  
Downes, John I. H.  
Duff, Mrs. J. Robertson  
Dumm, Clarence L.  
Earl, Thomas M.  
Edmunds, Miss Margaret M.  
Edwards, Mrs. James A.  
Einstein, R. E.  
Eisenmann, Eugene  
Elder, George R.  
Elliott, Dr. Arthur R.

Ellis, Mrs. Samuel  
 Ernst, Mrs. Edward H.  
 Evans, Mrs. C. DeLacey  
 Faithorn, W. E.  
 Fales, Mrs. Charles H.  
 Farmer, Edward C.  
 Farmer, Oscar  
 Farrow, Miss Marjorie S.  
 Feineman, Miss Emma B.  
 Fernald, Mrs. W. L.  
 Fitz Simmons, P. W. A.  
 Folger, Mrs. H. C.  
 Fread, Bernard  
 Freeman, Mrs. Charles  
 Frothingham, Robert  
 Gardner, Mrs. Georgia B.  
 Goodwin, George B.  
 Goulden, Charles J.  
 Graham, W. W.  
 Graves, J. M.  
 Greims, Mrs. Herbert S.  
 Griswold, S. A.  
 Haas, Charles W.  
 Hall, J. P.  
 Hanlon, Claude  
 Harmon, Mrs. Wm. E.  
 Hasting, Glover  
 Heinitsh, H. E.  
 Hibbard, John D.  
 Hinchliff, Mrs. Wm. E.  
 Hodge, James  
 Holzhauer, Mrs. Charles W.  
 Hornor, J. C.  
 Husson, Miss J.  
 Jacobs Bird House Company  
 Johnston, J. Herbert  
 Kibbee, W. B.  
 LaBar, Eugene S.  
 Leavens, Miss Annie M.  
 Lyons, Howard J.  
 McLean, Mrs. Ridley  
 Morgan, William Fellows

Marston, Miss Laura A.  
 Meriden Sportsmen's Association  
 Mohr, Lewis S.  
 Monday Conversational Club  
 Morris, Robert O.  
 Munger, Mrs. T. T.  
 Nature Study Society (Ill.)  
 Nellington, Mrs. C. O.  
 Nichols, Mrs. George  
 Obrig, Mrs. Adolph  
 Oppenheimer, Peter  
 Owen, Miss Harriette A.  
 Perera, Mrs. Lionello  
 Peter, Julius C.  
 Purdy, F. A.  
 Raymond, Howard E.  
 Regan, William M.  
 Renson, Joseph H.  
 Richardson, William D.  
 Rockwood, Miss K. C.  
 Rogers, G. Vernor  
 Ryle, Miss Julia  
 Saunders, Caroline C.  
 Schmidt, Miss C. Tessa  
 Scholle, William D.  
 Schweppe, Mrs. H. M.  
 Shiman, Mrs. A.  
 Shonnard, Mrs. Frederic  
 Sidenberg, George M.  
 Simon, Theodore A.  
 Stefansson, Vilhjalmur  
 Stuart, Mrs. R. Douglas  
 Sturgis, Miss Elizabeth M.  
 Taft, Mrs. John H.  
 Talbot, Mrs. E. S., Jr.  
 Upmeyer, William H.  
 Vonnegut, Franklin  
 Wadsworth, Samuel F.  
 Walker, Miss Lydia M.  
 Webb, C. Edwin  
 Wheeler, Miss Laura  
 Whitney, Edward F.











GREAT HORNED OWL

Order—RAPTORES

Family—STRIGIDÆ

Genus—BUBO

Species—VIRGINIANUS VIRGINIANUS

National Association of Audubon Societies